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MONOGRAPH

ISRAEL-IRAN-US DRONES-MISSILES-AIR CAMPAIGN JUNE 2025: OPERATIONS RISING LION, TRUE PROMISE III AND MIDNIGHT HAMMER: LESSONS FOR INDIA

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Israel-Iran-US Drones-Missiles-Air Campaign June 2025: OPERATIONS RISING LION, TRUE PROMISE III and MIDNIGHT HAMMER: Lessons for India

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Abstract

Three operations in form of Israel's RISING LION, Iran's response as TRUE PROMISE III and American MIDNIGHT HAMMER were unprecedented in their own ways- combined US and Israel's targeting of another sovereign nation's nuclear assets amidst ongoing nuclear negotiations; brilliantly planned and executed Israel's hybrid low-cost human cum technology strategic sabotage simultaneously achieving DEAD, minimising Iranian missile launches, eliminating top most military leadership and nuclear scientists; air dominance at a distance of more than 1500 km achieved by pre-emptive strikes through low-cost drones; a missile technology with speed and evasion contestation between hypersonic MRBMs and world's best integrated Rocket Artillery Air Missile Drones (RAAMD) defence including supersonic interception missiles; another failure of United Nations (UN) and its prime organ United Nations Security Council (UNSC) to prevent a conflict causing immense collateral damage to innocent civilians; Iran's isolated but admirable indigenously resilient fight against two advanced militaries despite strategic partnerships with two UNSC permanent members Russia and China; and most importantly Iran populace's difficult choice between regime change from an increasingly unpopular regime versus overcoming a national

humiliation and fight against an existential threat to survival being one of the oldest civilisations- Persian entity.

Many key lessons are relevant for India from the 12 days conflict from 13 to 24 June 2025 in multiple domains, particularly in the conduct of long-distance non-contact kinetic warfare involving drones-missiles-air campaigns. This monograph has analysed these operations in detail to identify the critical areas where Indian military, government and defence industry need to work together to address our national strategic challenges.

Key Words

Islamic Revolution Guards Corps (IRGC), Israel Defence Forces (IDF), Medium Range Ballistic Missile (MRBM), Rocket Artillery Air Missile Drones (RAAMD) Defence, Nuclear Enrichment Plants, Counter-Unmanned Aerial Systems (C-UAS)

Introduction

Air superiority used to be the primary pre-requisite for undertaking ground combat operations till a few years back to place boots on ground where they mattered the most. The Russian special operations in Ukraine, planned for seven days to get those boots on ground quickly, is now more than forty-one months long with no ceasefire in sight. While boots on ground matter the most during war, the last two years – 2024 and 2025 have seen a graduated shift towards non-contact kinetic combat to achieve the national security objectives. The new era of long-range drones-missiles-air-rockets-artillery campaigns have called off the bluff of nuclear deterrence. This new form of strategic signalling aims to coerce and compel adversaries through long range conventional strikes of both variety Counter-Value and Counter-Force. The escalation of conflict to de-escalate the crisis through the two deterrence methods “deterrence by punishment” and by the adversarial responsive “deterrence by denial” have been witnessed in West and South Asia in June and May 2025 respectively. Indian cruise missile strikes on PAF Bases on the fourth day of its Operation SINDOOR in May 2025 to strike Pakistani military targets, compelled Pakistan to request for a ceasefire. As Operation SINDOOR continues, the temporary truce may be broken anytime. Similarly, Israel and America’s longest distance drones-missiles-air campaign from 13 to 24 June 2025, to eradicate Iranian nuclear assets, has also concluded indecisively

with a temporary truce like the two earlier short Iran-Israel drones-missiles exchanges in April and October 2024.

While many global geopolitical events like the change of Assad regime in Syria facilitated this campaign, few others like the ongoing Russo-Ukraine War and the US-China trade war surely got impacted by the Israel-Iran-US triangular conflict. A conflict's cessation may or may not throw the winners at the end of it. Likewise, this non-contact campaign for 12 days in June 2025 remained indecisive and has a temporary truce for the third time in two years as elucidated below in the infographic. This will not be the end of Iran-Israel conflict since both nations regard each other as existential threat. The US-Israeli campaign neither achieved their stated campaign of obliteration of Iran's nuclear weapons and missiles' production capabilities nor succeeded in an attempted regime change. While Iran managed to minimise damage caused to its nuclear assets, it resiliently managed to deplete Israel and American BMD arsenal through a combination of vintage and new indigenous MRBMs.

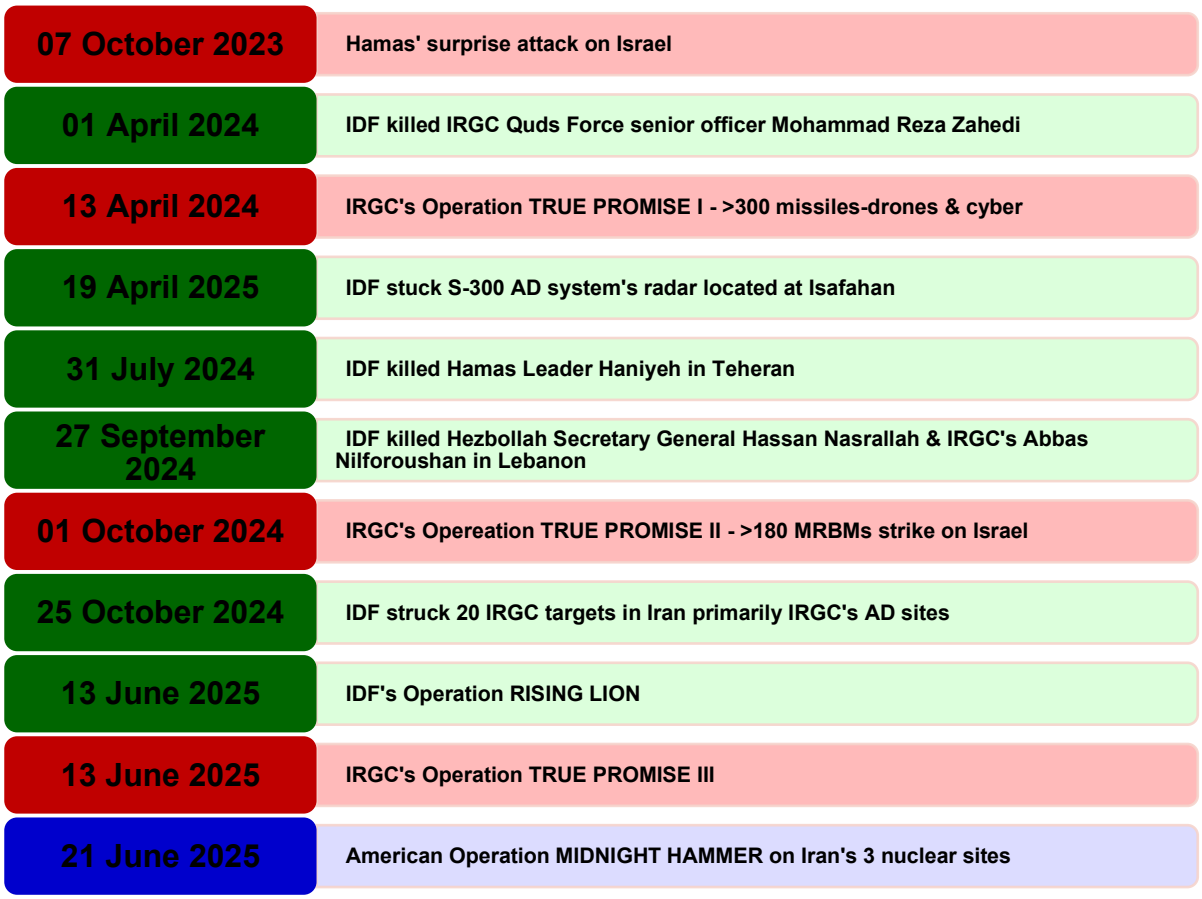


Figure 1: Timeline- Iran-Israel-US Non-Contact Kinetic Conflicts – 2024 & 2025

(Source-Author's Research)

India, fresh from its own four days long missiles-drones-air-artillery duel in May 2025, closely witnessed a conflict at much larger scale- technologically, temporally and spatially at the highest rung of escalation ladder. It saw a close neighbour fight two advanced militaries wherein its two decades of nuclear and missiles infrastructure's protection was tested. While India is an established nuclear power, it requires to enhance its indigenous array of conventional MRBMs and drones. With "Strategic Autonomy" as the core principle of India's foreign policy, indigenous military power in the domains of space, conventional missiles and drones is absolutely essential for nation's survivability in the era of intense non-contact kinetic conflicts. This monograph will thus decipher the lessons applicable to India particularly with focus on Chinese military's capabilities. It will examine the Israeli Operation RISING LION, build up to it, Iran's third retaliatory operation TRUE PROMISE III, and the American strategic bombing campaign Operation MIDNIGHT HAMMER to identify lessons as applicable in Indian context.

Background

In Israel's parliament Knesset, the far-right' members of Netanyahu's cabinet had planned a vote of confidence on 13 June 2025. They had threatened to leave if Israeli Prime Minister Netanyahu didn't attack Iran. Hence, it is considered that on the internal political front, Netanyahu's only available option was to attack Iran by 13 June 2025 to prevent his government's collapse and resultantly new elections in Israel.[1]

The pre-requisite for Israel to launch its longest distance operation ever was to ensure a secured home-front. Since Israel regarded Iran and its proxies as an existential threat, IDF had been planning since long time to incrementally eliminate each component of this multi-dimensional threat. Iran's nuclear weapons and missiles production capabilities stood out as the single most important threat. However, shaping of neighbouring areas was essential for undertaking Israel's longest-range air and drones strikes on Iran. American support was most critical but also of many other neighbouring countries.

07 October 2023: Hamas well-planned strikes on 07 October 2023 not only surprised complete IDF and Israeli nation but are surely a humiliation for their secretive

agency Mossad which is difficult to forget. Israelis say that they were preparing for the strike on Iran since long and hence their attention was diverted from operations being launched against them closer home. Thus, IDF's first priority was to eliminate Hamas leadership and military infrastructure as far as possible before undertaking any focussed campaign against Iran. Apropos, Isreal has continued its Gaza operations unabated till now despite worldwide condemnation and temporary ceasefires.

Operation TRUE PROMISE I

On 13 April 2024, IRGC launched a major missiles-drones strike Operation TRUE PROMISE on Israel in a retaliatory response to the IDF's airstrike on an Iranian consulate in Damascus, Syria that killed a senior IRGC Quds force officer Mohammad Reza Zahedi on 01 April 2024. Iran's non-contact attack comprised cyber-attacks, about 108-120 MRBMs, nearly 30-35 cruise missiles and over 180 one-way-attack (OWA) drones. Israel, well-prepared and warned by Iran, intercepted most drones, ballistic and cruise missiles but few MRBMs did hit Nevatim air base but nothing consequential was damaged. Israel was assisted by Jordan, UK, France and US in undertaking multi-layered interception thereby negating Iran's long-range strikes to negligible damage. The Israeli Arrow-2 and Arrow-3, in conjunction with American SM-3 missiles, undertook endo- and exo-atmospheric interceptions of IRGC's MRBMs. Although IDF also intercepted several follow-on ballistic-cruise-missiles-OWA drones' strikes on Southern Israel by Iranian proxies Houthis, it did deplete Israel's RAAMD-defence capacity. The Israeli Air Force (IAF) responded by precisely striking Iran's SAM battery deployed for AD protection of Isfahan nuclear site on 19 April 2025. [2]

Operation TRUE PROMISE II

IDF, in its continued campaign to eliminate Hamas and Hezbollah leadership, killed Ismail Haniyeh, Hamas' Political Bureau Chairman, in Teheran on 31 July 2024. It then went on to kill Hassan Nasrallah, Secretary General Hezbollah and Abbas Nilforoushan, Operations Deputy IRGC in Beirut Lebanon on 27 October 2024. Apropos, Iran's second retaliatory strike on Israel, Operation TRUE PROMISE II without any prior warning, on 01 October 2024 comprised 180 MRBMs but no drones were launched. IDF's responsive precise strikes on 25 October 2024, comprising

approximately 100 fighter aircrafts in three waves, targeted 20 IRGC's targets including AD sites, missiles' components production infrastructure and the affiliated supply chain.[3] With a precursor strike on Syrian AD, the IDF's aim was to damage maximum Iran military's S300 SAM sites thereby disrupting and disintegrating IRGC's AD network to establish an air corridor with least AD resistance for later operations. With Russia denying provision of S400 LR-SAMs to Iran, IRGC's AD was significantly degraded and needed significant time to recover. IDF had thus shaped the AD environment of Iran particularly its nuclear sites for the eventual launch of strikes on Iranian nuclear strikes post anticipated failure of nuclear negotiations.

Availability of Syrian Airspace

The fall of Assad regime in Syria and IDF's immediate occupation of few vital areas provided Israeli military with a sanitised air corridor to Iran. IAF now needed to either fly through Iraq for air / UCAV strikes on Western Iran or use friendly Azerbaijan's airspace to infiltrate Iranian airspace from North.

Iran's Nuclear Capabilities – May 2025.

A US Defence Intelligence Agency (DIA) report supposedly expected Iran could reach 90% U-235 enrichment in 6-9 months at Natanz / Fordow. As per the Atomic Inspectors of the International Atomic Energy Agency (IAEA) during their last visit to Iranian sites on 10 June 2025, Iran had about 408.6 kg of uranium enriched to approximately 60% of the fissionable U-235 isotope; 275 kg of 20% and nearly 5,509 kg of 5% enriched uranium by end May 2025. The IAEA felt that Iran's stockpile was adequate for about ten nuclear weapons with further enrichment.[4] IDF, in its tweets claimed that Iran held 7265 kg of enriched uranium as of February 2025[5] which could produce anything between 9 to 15 bombs.[6]

Operation RISING LION

With the above background, internal political compulsions and adequate coordination with USA and having shaped the geopolitical environment, IDF launched Operation RISING LION on 13 June 2025.

Aim

IDF's two-pronged aim was firstly to eliminate all components of the Iran's military nuclear program, and secondly IRGC's and UAV strike capabilities as amplified by IDF's spokesperson's statement. He summed it up as "**remove an existential threat to Israel by targeting every threat layer of Iran**" and emphasised IRGC's recent acceleration to produce many nuclear bombs and 8000 plus missiles[7].

Israel's Justification

Israeli PM Netanyahu's reasons for conducting a strike on Iran's nuclear infrastructure was that "***Iran has produced enough highly enriched uranium for nine atom bombs***." Dr Jeffrey Lewis, a nuclear expert at Middlebury Institute, appreciates that Netanyahu was referring to Iranian stockpile of nearly 400 kg of 60% U-235 which when enriched is sufficient for 9-10 nuclear weapons.[8]

Iran's Nuclear Facilities

Since IDF's primary aim was to eliminate Iran's nuclear capabilities, it's important to have a look at key Iranian nuclear sites.

- **Fordow**

  The Fordow Fuel Enrichment Plant (FFEP) is Iran's most protected nuclear site. Its plant buried 90m underground near Qom housed about 2700 centrifuges. It took six years of construction from 2006 to 2012 to complete and make the site active. With an estimated cost of $1.7 billion, it was configured to survive American bunker buster airstrikes.[9] Most Uranium enrichment was being undertaken in this facility.[10]

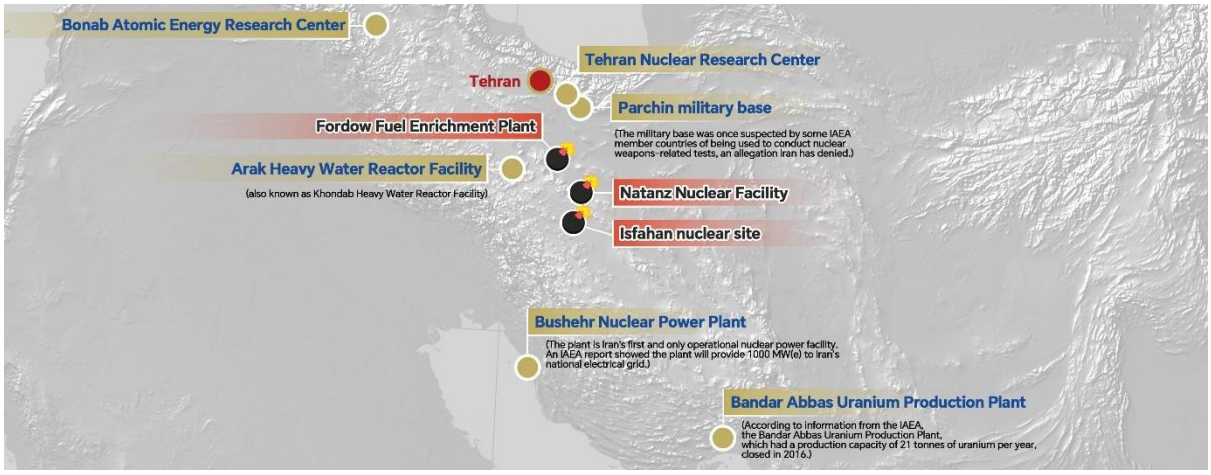


Figure 2: Iran's Nuclear Facilities
(Source- CGTN[11])

- **Natanz**

  A lesser amount of 60% enriched Uranium was produced at the Natanz enrichment plant. While its above-ground facility and houses approximately 1700 centrifuges, its underground plant was holding approximately 17,000 centrifuges. [12]

- **Isfahan**

  Isfahan hosted a large and important nuclear research and development (R&D) complex of Iran. Additionally, this nuclear complex housed many plants critical for production of nuclear weapons fuel. Most of the Iran's stockpile was stored in the tunnels at this site. On 12 June, one day before the IDF strike, Iran had announced that it was constructing its fourth enrichment plant deep underground and IAEA appreciated its location within Isfahan complex. [13]

- **Arak**

  It houses an inactive heavy water reactor.[14]

Figure 3: Airbus Image: IDF Strike on Iran's Arak Heavy Water Reactor Facility
(Source- Airbus, Open-Source Centre[15])

IDF Preparations: Israel rightly appreciated Iran to strike back with heavy barrages of MRBMs. While the plan for RISING LION was aimed at Iran's nuclear facilities and SSM installations, IDF simultaneously also prepared to strengthen its BMD layer. Boaz Levy, the CEO Israel Aircrafts Industry (IAI) aptly describes the continuous software upgrade of Arrow 2 and Arrow 3 missile interceptor missiles against Iran's MRBMs:

> "*IAI is analysing each missile attack against Israel on a case-by-case basis, whether it's a single shot or a barrage of fire. We do have lessons learned about system operation, about threat capabilities, and more…all these engagements (Iranian TRUE PROMISE I and II, Houthi missile attacks) ultimately helped prepare Arrow for its most significant test yet: the most recent conflict (TRUE PROMISE III) with Iran, which fired hundreds of ballistic missiles at Israel over a 12-day stretch. IAI develops Arrow in a building blocks mechanism, which means that, every now and then, we are upgrading the system capability, utilizing a new building block… During this time, between April last year to this attack, we did have several upgradations of the systems.* ***It's a software change that will lead us to a better capability***."[16]

The IDF's Anti-ballistic Missile (ABM) sites were activated well in advance to ward off IRGC's missiles barrage. Many sites like Nevatim, Noth Tel Aviv, Sdot Micha, Palmachim and Ein Shemer were occupied during TRUE PROMISE II also. [17]

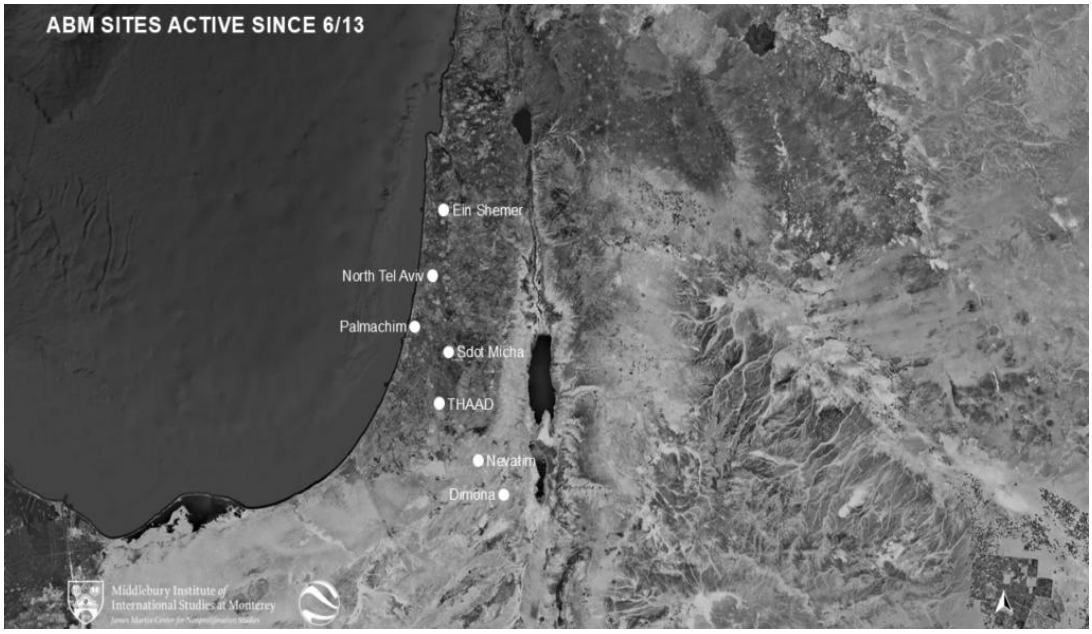


Figure 4: ABM Sites on Israel's Soil: 13-24 June 2025
(Source-Sam Lair, Arms Control Wonk[18])

Kill Web

IDF had established a multi-media communication network, a coherent and fused battlespace management system for generating common operational picture and adequately integrated kill chain. [19]

Pre-emptive Strike

While IDF had significantly degraded Iranian AD in October 2024, it planned on obliteration of the balance AD elements of IRGC to achieve complete air dominance. It is rumoured that US President Trump had already given the executive order for Operation MIDNIGHT HAMMER on 08 June 2025 to strike Iran's three critical nuclear sites. Thus, IDF's primary task was to provide a 100% sanitised air corridor for USAF's strategic bomber fleet to sneak in and drop its bunker buster bombs for which it had rehearsed for more than 15 years. The pre-emptive strike of Operation RISING LION thus executed the following operational missions:

- **Electronic and Cyber Salvo**: IDF's combination of powerful standoff jamming and cyber-attacks disrupted IRGC communication and Iran's internet services.[20]

- **Elimination of IRGC Leaders**: IDF struck an IRGC underground HQ eliminating the commanders of the Aerospace Forces (AF) Amir Ali Hajizadeh, AF UAV Command, Taher-Por, and the AF AD Command, Daoud Shihian etc eliminating 10 senior leaders in total. IDF also stuck the homes of two top Iranian military commanders, located in Tehran - Major-General Mohammad Hossein Bagheri (Chief of General Staff) and Major-General Hossein Salami of IRGC. [21] Additionally, it killed prominent nuclear scientists.
- **Secret Drones Factory**: Replicating Ukrainian FPV strikes, Israeli Mossad agents established a secret drones production factory inside a building in Teheran, the Iranian capital. [22]

Figure 5: Mossad's FPV Drones Assembly House in Teheran
(Source- Eran Salmon[23])

- **Airbase**: The Nojeh Air Base was decapacitated by striking aircraft hangars, tactical surveillance radar, and preventing the base from flying its own fighters or cueing its local SA-6 AD. [24]
- **Communication Nodes**: The major focus of hitting communication nodes was to deny communication to AD assets. Apropos, the Chitgar communication facility and Karaj communication towers were targeted. [25]
- **DEAD**: On the morning of 13 June 2025, the Mossad operated FPV drones and missiles to strike IRGC's two dominating AD radar stations at Mt. Subashi, in Hamadan, and Asfaqabad, outside Tehran and many active SAM sites of Bavar-373, S-300, and 3rd Khordad. This supposedly provided IAF an air corridor from the Iran-Iraq international border to central Iran.[26]

Figure 6: IDF's DEAD Strike on IRGC's Sobashi Radar Site
(Source: Damien Symon[27])

Figure 7: A screenshot from IDF's released video showing Iranian Khordad TELAR in the crosshairs of Mossad's attack drone
(Source- Sarcastosaurus[28])

- **SSMs**.Mossad's commandos used drones' and precision missiles to strike IRGC's transporter-erector-launchers (TELs) of ballistic missiles, as these moved out of their covered hides / bases to launch positions for firing at Israel in retaliatory response to IDF's strikes on radar sites. [29]

Figure 8: A screenshot from IDF's released video showing targeting of IRGC's SSM TEL

(Source- Sarcastosaurus[30])

IDF's Strikes: Having achieved a secure air corridor through Syria and Iraq / Azerbaijan, IDF then launched an integrated air-drones-missiles campaign from 13 to 20 June 2025 to degrade the Iranian military sufficiently before launch of the final blow by US military through Operation MIDNIGHT HAMMER on 21 June 2025. The day wise key targets of IDF, as per official IDF X-handle, from 13 to 23 June 2025 are listed below in Table **1**.

Date	**Key IDF Targets in Iran & Yemen**	**Claimed Success**	**Remarks**
13 June - ~200 aircrafts	Fordow, Isfahan & Natanz nuclear enrichment plants & sites; HQ IRGC Underground Command Centre & Atomic Energy Organization of Iran (AEOI); Arak heavy water reactor; Parchin military complex; IRGC missile bases near Tabriz and Kermanshah	Elimination of COS IRGC; Commanders of UAV Force, Emergency & Aerial Commands	Most stockpile stored in Isfahan tunnels probably remained safe.
14 June	Senior Military Commanders & Nuclear Scientists - Total 30 senior commanders & 11 scientists eliminated during 12 days	Elimination of 6 commanders & 9 scientists	
15 June	HQ Iranian MoD & SPND nuclear project; >100 military targets in Isfahan, Central Iran and Sanaa in Yemen; Mashhad airport	>20 SSMs; 4 IRGC senior officers; Refuelling aircraft	IDF claimed that IRGC's 1/3rd SSMs had been destroyed
16 June	UAV & aircrafts in Tehran; Communication Centre (IDF claim of IRGC's guise of civilian centre); Quds Force HQs	2 F-14 fighters; UAV launch cell	Interception of >100 IRGC's UAVs

17 June	12 SSM & UAV launch sites & storage facilities	Ali Shadmani- IRGC's Chief of Staff	
18 June	40 SSM infrastructure sites; centrifuge production site & multiple weapon manufacturing facilities in Tehran	1 Emad SSM	
19 June	Arak's inactive nuclear reactor; Natanz nuclear weapons development site; SSM & SAM production facilities; >20 military targets in Tehran		
20 June	SSM manufacturing sites & radar installations at Isfahan & Tehran; Internal Security HQ; Sazman-e Pazhouheshhaye Novin-e Defa'i (SPND) HQ in Tehran	3 SSM launchers	Intercepted 4 UAVs
21 June	Isfahan nuclear site; IRGC sites in Western Iran	Two Quds Force commanders Behnam Shahriyari & Saeed Izadi	Intercepted >40 IRGC's UAVs
22 June	SSM engine production site in Shahroud; "Imam Hussein" Strategic Missile Command Centre (Khorramshahr missiles storage site); SSMs, AD Batteries and UAV C2 Centres at Isfahan, Bushehr, & Ahvaz	2 F-5 fighters; 1 F-14 fighter; 8 SSM launchers	60 missiles fired from Imam Hussein site at IDF
23 June	Basij HQ, Aloborz Corps, "Thar-Allah" Command Centre, "Sayyed al-Shuhada" Corps, General Intelligence Directorate of the Internal Security Forces, Access Routes to Fordow enrichment site; 6 IAF Airports- Tabriz, Theran-Mehrabad, Hamedan, Dezful, Shahid Bakhtiari, Mashhad; Radars, SAMs, Missile storage & launch infrastructure at Kermanshah, Hamedan and Tehran.		

Table 1: Daywise IDF Targets in Iran and Yemen during Operation RISING LION – 13-23 June 2025
(Source- IDF's X-handle https://x.com/IDF)

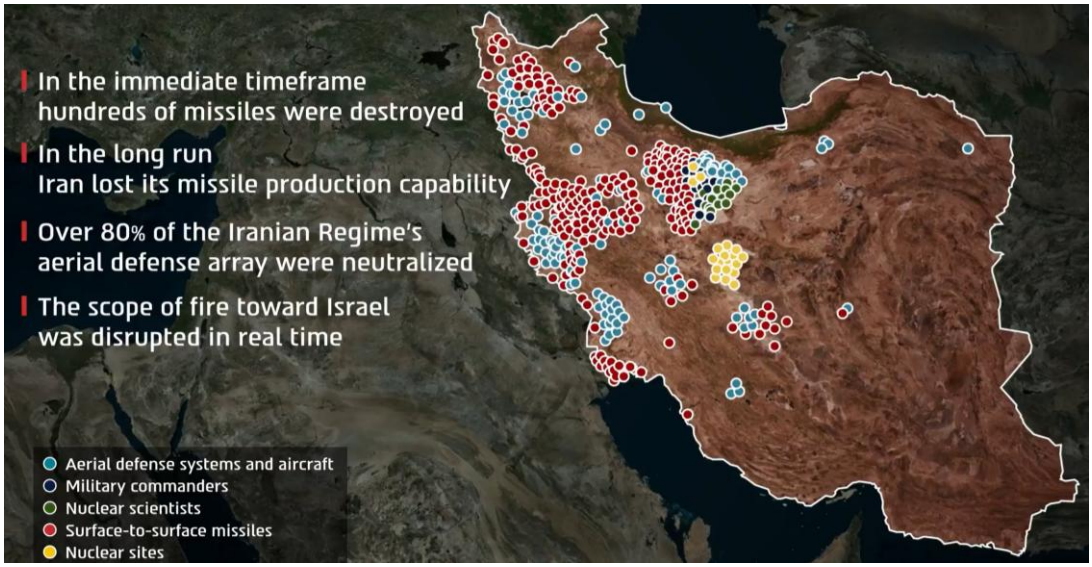


Figure 9: Screenshot from IDF Spokesperson's Brief on Targeting of Iran
(Source-IDF[31])

Israel's RAAMD Defence: Since IDF appreciated IRGC's strong retaliatory response in the form of heavy barrages of missiles-drones strikes, it had to strengthen its own RAAMD defence particularly LRAD and BMD. Israel has one of the world's best integrated multi-layered Rockets-Artillery-Air-Missiles-Drones Defence, as depicted in figure below. IDF's RAAMD defence comprises the following layers/ tiers: -

- As per IISS Military Balance 2025 edition, Israeli Army has FIM-92 Stinger MANPADS and Machbet SHORAD for point AD, while IAF has Machbet SHORAD. [32]

- The Iron Dome component comprises short-range platforms which intercept Rockets, Artillery and Mortars (RAM portion).[33] 10 batteries of Iron Dome are with Israeli Army while nearly 40 platforms are there with IAF. [34]

- The 'David's Sling' AD system handles mid-altitude air threats from adversary's ballistic missiles launched from distances 70 to 300 km, subsonic cruise missiles, aircrafts, helicopters, low-flying long-range drones and swarm drones. [35] Up to two batteries of David Sling are in the Israeli Army and some pieces are there with IAF as per Military Balance 2025 edition.[36] An all-weather system operationalised by IDF in 2017, its

heart is a two-stage interceptor missile costing nearly 1 million US dollars. With two types of guidance systems- radar and infrared (IR), the missile can alter its trajectory during flight.[37]

Arrow BMD System: The IDF's RAAMD's top defence layer, comprising the Arrow 2 and 3 two-stage solid-fuelled interceptor missiles, engages incoming ballistic missiles outside the atmosphere. During Iran's Operation TRUE PROMISE II, IDF Arrow 2 and 3 ballistic missile interceptors had presumably achieved an interception success rate of 80-90%.[38] A joint product of Israeli Aircraft Industries (IAI) and the US aerospace firm Boeing, Arrow 2 can intercept missiles in the upper atmosphere and was first inducted in IDF in 2000. Arrow 3 was operationalised in 2017 and is capable of intercepting targets in space. Apart from live testing on intercepting missiles during IRGC's Operations TRUE PROMISE I and II, the system has been frequently employed to intercept Houthi missiles too. [39] Israeli Army has about three batteries of Arrow 2/3 interceptors as per Military Balance 2025. [40]

- One battery of US Terminal High Altitude Area Defence (THAAD) system was deployed in late October 2024 after IRGC's Operation TRUE PROMISE II on 01 October 2024 as shown in figure below. The full load of a THAAD battery is about 48 interceptors.[41]

Figure 10: US THAAD Battery Deployment in Israel Since October 2024(Source-Sam Lair, Arms Control Wonk[42])

- IAF has long-range M901 Patriot PAC-2 in addition. [43]
- Israeli Navy has 3 Eilat (Sa'ar 5) corvette with Barak-8 MR-SAM (four 8-cell VLS) and 4 Magen (Sa'ar 6) with Barak LRAD SAM (four 8-cell VLS). [44]

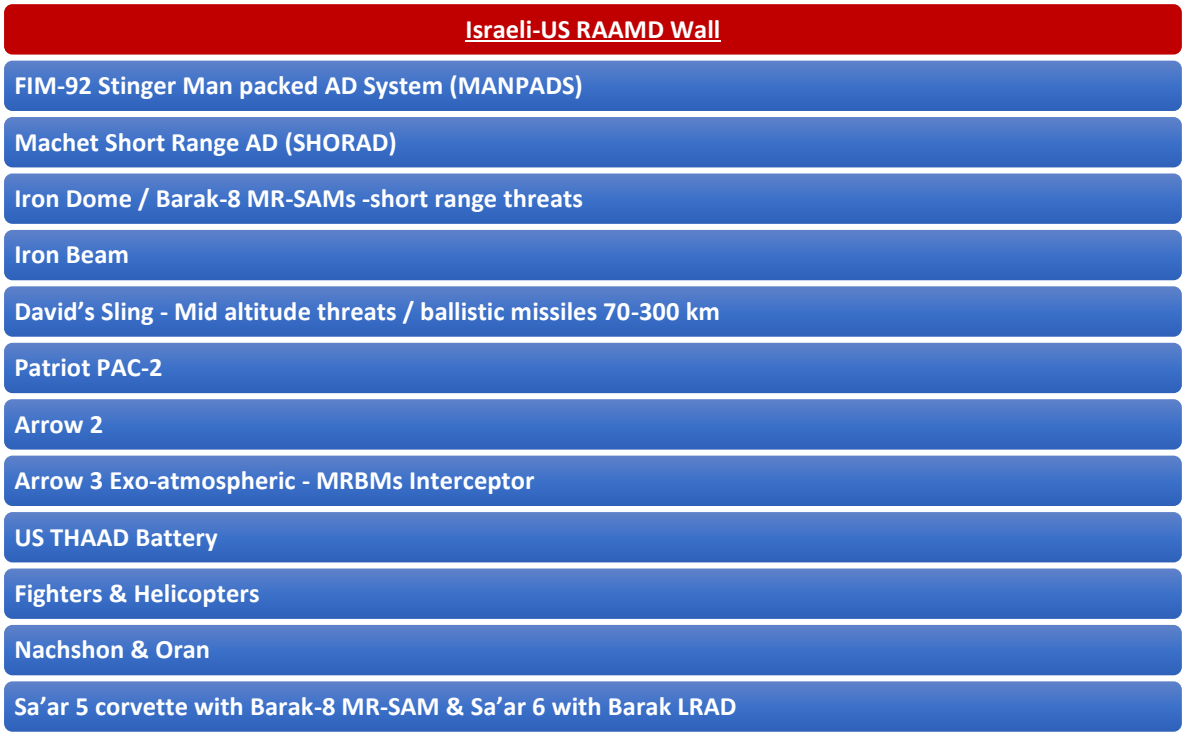


Figure 11: IDF's RAAMD Wall
(Source-Author's Research)

Operation TRUE PROMISE III

While Iran's retaliatory response in the form of Operation TRUE PROMISE aimed to target Israel, it simultaneously took other measures to protect its nuclear plants and missile production infrastructure. On 13 June 2025, the starting day of IDF's Operation RISING LION, Iranian Foreign Minister Dr Abbas Araghchi wrote a letter to Director General (DG) IAEA informing him that Iran will "***adopt special measures to protect our nuclear equipment and materials***". The DG IAEA claims, that in his response on 14 June 2025 itself, he had indicated that "*any transfer of nuclear material from a safeguarded facility to another location in Iran must be declared to the Agency as required under Iran's Safeguard Agreement*".[45] Thus, Iran's shifting of nuclear stockpiles to other locations happened, despite US government denials, and more importantly IAEA now is not aware of those locations. Despite satellite images showing

parking of Iranian trucks at the Fordow site on 20 June 2025, US AF still went on to undertake its operation on 21 June 2025.

The major aim of Iranian TRUE PROMISE III was to disarm Israel significantly. The probable tasks for Iranian military and IRGC were[46]:

- To degrade and saturate Israel's AD and BMD capabilities with older vintage missiles in the starting thereby making it easier for its latest and more precise versions of hypersonic MRBMs later to cause significant damages. Saturation of Israeli Iron Dome could have significantly revived the threat of Hezbollah's missiles and rocket closer to Israel.
- To precisely strike high-end sensor elements of Israel military like the X-band AN/TPY-2 radars in order to deny it the capability to identify and discriminate between real targets and decoys.
- To deplete and exhaust Israel's AD capabilities thereby causing economic loss and also diminish Israel's combat sustenance capability for an elongated air-missile campaign. A lot of internet-based forums have appreciated Israel's multi-layered aerial-missiles-drones defence capability to be about 14 days to defend against qualitative threat.
- Restart the quantitative counter-force low-cost missile campaign from Western Iran and enhance the quantum of drones when the IAF air sorties rate is reduced and AD as well as BMD capabilities depleted.

Iranian Array of Missiles: To undertake penetration of IDF's RAAMD defensive wall, the Iranian array of missiles mainly comprised MRBMs with adequate reach to strike Israel.

Figure 12: International Institute for Strategic Studies (IISS) Assessment of Employment of Iranian Missiles in Operation TRUE PROMISE III
(Source- Fabian Hinz, IISS[47])

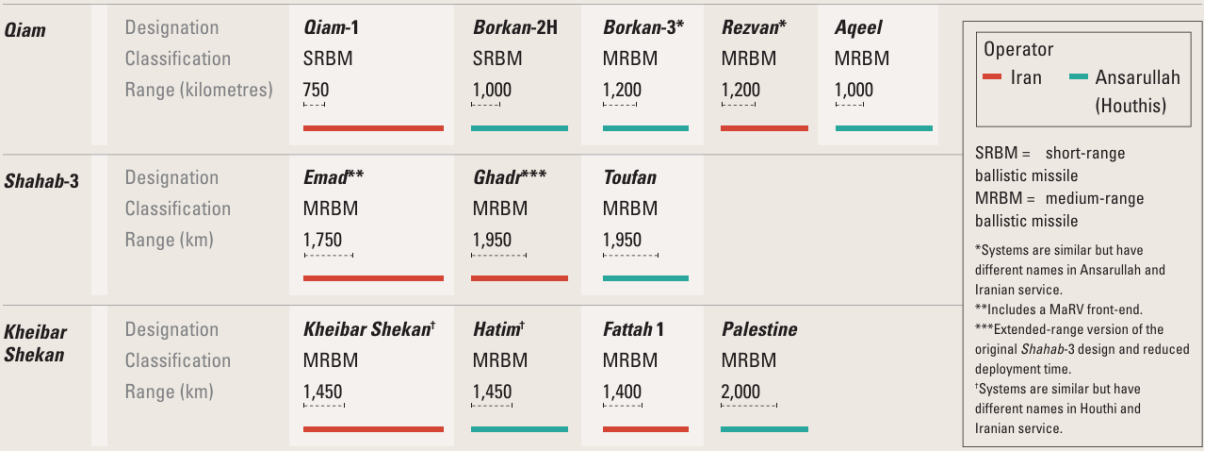


Figure 13: IISS Military Balance 2025 Edition's Assessment Iranian Ballistic Missiles' Family
(Source- IISS "Military Balance 2025" [48])

- **Khaibar Shekan**: It has three versions called Khaibar Shekan 1, 2 and Fattah 1 MRBMs.[49] On the morning of 20 June 2025, IRGC launched its first multi-warhead 3rd generation Khaibar Shekan ballistic missile during the 20th wave of missiles-drones campaign.[50]

- **Fattah 1 Hypersonic MRBM**: Fattah-1 is claimed as the Iran's most advanced operational hypersonic MRBM which was employed in this operation. With claimed speeds of 13 to 15 Mach[51], it has a maximum range of 1,400 km. As per Iranian claims, the added advantages of advanced aerodynamic design and manoeuvrability with its high speed facilitate evasion of detection by American TPY-2 radar and Israel's Green Pine radar and make it very difficult to intercept by Isreal's AD systems like Iron Dome, David's Sling, and Arrow 3. Iranian media claims that David Sling is ineffective against the hypersonic speed and manoeuvrability of Fattah-1 while the Arrow 3 system struggles since its interceptors with comparatively lower speed of 8 to 10 Mach fail against hypersonic speeds in the range of 13 Mach. The IRGC employed this missile to specifically target Israel's radars of its BMD systems, thereby aiming to facilitate penetration by older Qadr, Emad and other missiles. It had most likely conducted successful strikes on Israel's Nevatim Airbase during Operation TRUE PROMISE II on 01 October 2024 and during the Operation TRUE PROMISE III.[52] During the 11th wave of IRGC's attacks, Fattah-1 missile is claimed to have evaded 17 Israeli interceptor missiles before striking targets in Tel Aviv.[53] This Iranian claim is extremely unlikely to be true. While both sides in war exaggerate and propagate successes, a one-tenth of the claim would also mean that at least two interception missiles (probably one Arrow and other David's Sling layer) failed to stop Fattah-1 MRBM from hitting the target.
- **Qadr / Gadr**: A liquid fuelled MRBM developed in 2000s, it has three varieties 'S' with a range of 1350 km, 'H' at 1650 km, and 'F' with 1950 km range. With a claimed speed of nearly 9 mach, the various missile types carry warhead ranging from 650 to 1000 kg which can be released as cluster or multiple smaller warheads thereby enhancing the destruction possibilities by reducing adversarial AD effectiveness. It has reasonably high accuracy employing Inertial Navigation System (INS) and optical guidance. [54] Being a liquid propellant-based missile, it requires the longest missile preparation time. Israeli military flew various UCAVs to target these missiles' launch locations since it gave them adequate time to hit them while the missile launch locations were prepared. On 16 June 2025, IDF claimed to have hit 120 SSM launchers in last

four days which would have included other varieties too. The pro-Iran accounts accepted successful strikes on minimum 8 Ghadr MRBM launchers.[55]

- **Emad**: Introduced in 2015, Emad is claimed as Iran's first MRBM with advanced guidance till impact thereby achieving 10m accuracy. It carries a 750 kg warhead to a maximum range of 1700 km. Post its precise strikes on Israel's Nevatim base in October 2024, this liquid-fuelled missile has been advertised as Iran's most accurate missile. [56] Its subversions include Emad, Etemad and others. [57]
- **Haj Qassem**: Named after late IRGC Commander Qassem Soleimani, it is supposedly Iran's latest solid fuelled MRBM achieving a range of approximately 1400 km at a claimed speed of >12 Mach with warhead carrying capacity of 500-700 kg. [58] The storage cum production facility of this missile at Khojir was successfully targeted by IDF which would have adversely impacted the Iranian Haj Qassem production capacity.[59]

Parameter	**Date / Time**	**Drones**		**Missiles**						**Total**
		Shahed	**Arash-2**	**Haj Qassem**	**Khaibar-Shekan**	**Emad**	**Qadr/ Ghadr**	**Fattah-1**	**Sejil**	
Type		OWA drone	LM	MRBM	MRBM		MRBM	Hypersonic MRBM	2-stage MRBM	
Range (km)		131-900; 136-2500	2000	1300-1400	1300-1450	1700-1750	S-1350; H-1650; F-1950	1400	2000-1500	
Speed-(Mach)		0.1	0.5	>12		7-8	9	13-15	10-12	
Warhead (kg)		15-50	100-150	500-700	550	750-970	MIRV, 650-1000	450-500	Tri-conic 500-1000	
Accuracy m				<5m		10		5?	<10	
Fuel				Solid	Solid	Liquid	Liquid	Solid		
Wave / Main Target	**Date / Time**	**Shahed**	**Arash-1/2**	**Haj Qassem**	**Khaibar-Shekan**	**Emad**	**Qadr-Ghadr**	**Fattah-1**	**Sejil**	**Total**
1- Nevatim AF Base	2300-13 June	Yes			Yes	Yes	Yes			~ 27 missiles
2 – Haifa, Ashdod, Eilat Port	0300-14 June	~180			Yes	Yes	Yes			~96 missiles
3-Tel Aviv, C2 Centre	0700-14 June									
4	2100-14 June									
5	0400-15 June				Yes	Yes	Yes			
6	1800-15 June									
7	0600-16 June	>100								

8	2200-16 June									
9	0300-17 June									
10	2100-17 June									
11	0800-18 June									
12- Tel Aviv; Soroka Hospital in Beer Sheva	0200-19 Jun							Yes		
13 – Mossad & Aman HQ	0900-19 June								Yes	
14	1900-19 June									
15	0800-20 June	>4 UAVs								
16	1800-20 June									
17	0500-21 June									
18 – 14 sites, Haifa, Ben Guiron	0310-21 June	Heavy – 40+ UAVs								27 (22+5)
19	100-22 June				Multi-warhead					40
20	0500-23 June				Yes	Yes	H- Yes	Yes		
21	1200-23 June									
Post ceasefire	24 June									2 MRBMs
IDF accepted that **IRGC fired > 530 missiles & launched > 1100 UAVs** during the 12 days non-contact conflict wherein IDF could intercept 99% of UAVs.										

Table 2: Claimed Iran's Missiles Strikes as part of Operation TRUE PROMISE III

(Source-Author's Research[60])

Figure 14: IDF's Graphic of IRGC's Drones-Missiles Assaults 16-21 June 2025
(Source- IDF's X-handle[61])

Chinese Assistance: The Chinese assistance to Iran during Operation TRUE PROMISE has included the following:

- Diplomatic support by condemnation of Israeli attack at SCO and UNSC.
- Provision of unimpeded Beidou Global Navigation Satellite System (GNSS) support. The Iran-China comprehensive strategic cooperation agreement of 2021 has a clause for full access to Beidou GNSS network. This access undoubtedly has facilitated better accuracy of Chinese MRBMs over large distance traversed.
- Delivery of minimum three aircraft worth items. These aircraft most probably took off from Shanghai for Luxembourg but were diverted for Iran somewhere North of Turkmenistan.

Although Israel is much smaller than Iran in size, Chinese commercial satellites surprisingly imaged Iran at a greater density during this 12-day period as elucidated in the graphs below prepared by Mr Adithya Kothandapani, an Independent Indian Space Expert. While China may or may not have provided Israel's satellite images to Iran, PRC's focus was clearly on Iranian nuclear sites having clicked maximum of 45 to 81

images per day of points of interest during the peak period. On 14 June 2025, one day after IDF's opening strike on 13 June 2025, Chinese commercial satellites peaked clicking nearly 2500 images of complete Iran in one single day. **It's very likely that China will use this enormous amount of invaluable geospatial data for improving the protection of their own nuclear silos and better targeting platforms and software for tunnelled targets**.

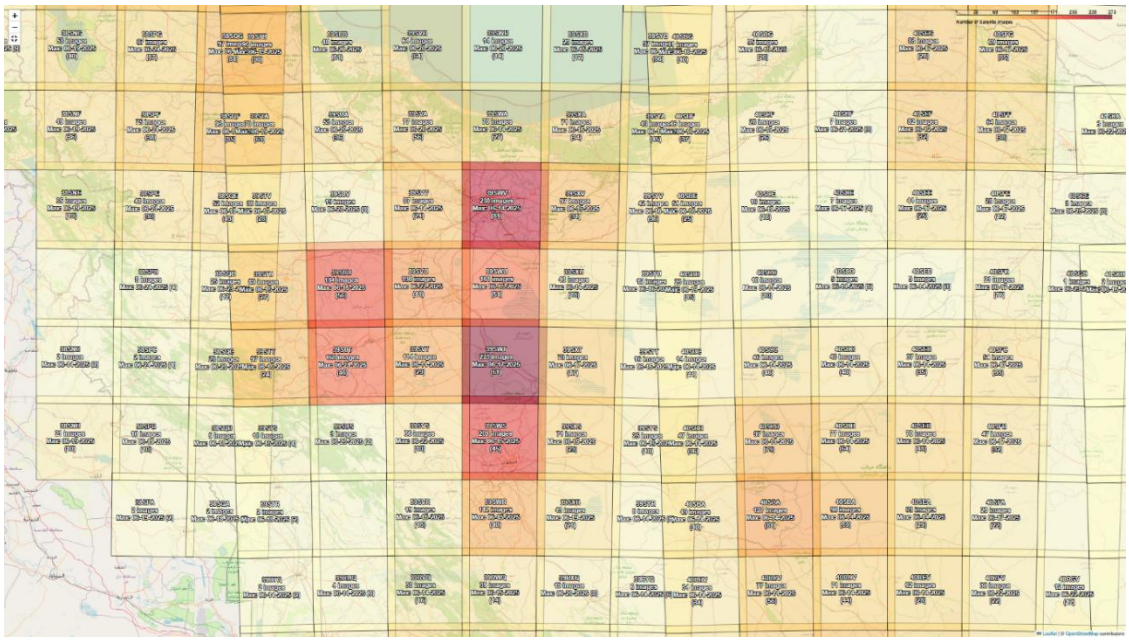


Figure 15: PRC's Commercial Satellites' Peak Imaging of Iran's Points of Interest: 12-24 June 2025
(Source- Mr Adithya Kothandapani)

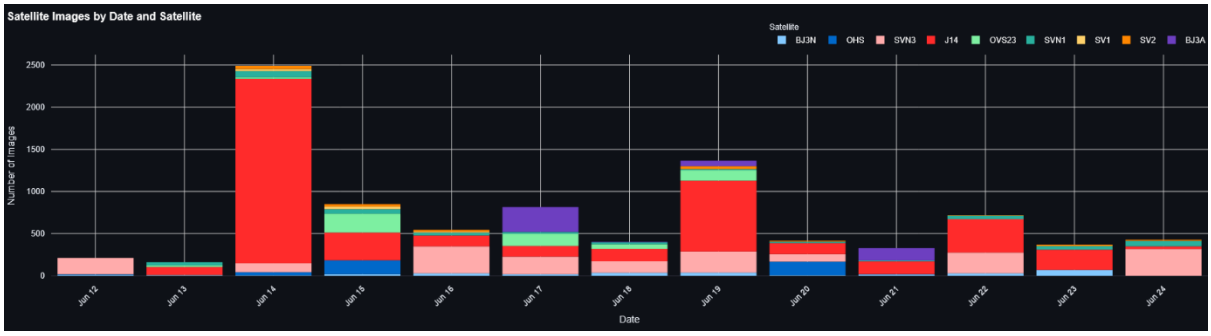


Figure 16: PRC's Commercial Satellites' Daily Imaging of Iran: 12-24 June 2025
(Source- Mr Adithya Kothandapani)

As a major strategic partner with 25 years strategic partnership treaty since 2021, Chinese civilian satellites hardly imaged Israel in the critical period from 13 to 15 June and reached the peak of >340 images on 17 June 2025 with nearly 48-67 images of each point of interest. China was still the lead country imaging Israel leaving Western world way behind. It cannot be confirmed whether Chinese satellites images were

provided to Iran or not. However, it is evidently clear that Chinese satellites did image Israel many times more than US and France. **PLA would have studied the deployment of American and Israeli BMD / RAAMD assets in detail during war**.

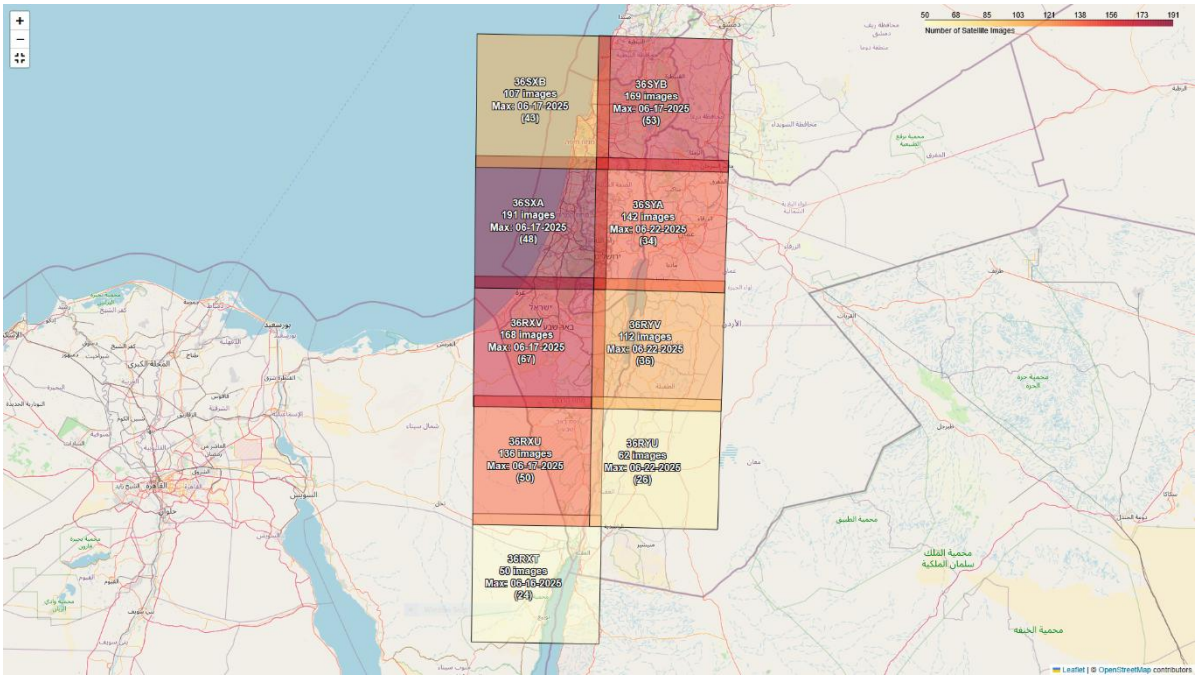


Figure 17: PRC's Commercial Satellites' Peak Imaging of Israel's Points of Interest: 12-24 June 2025
(Source- Mr Adithya Kothandapani)

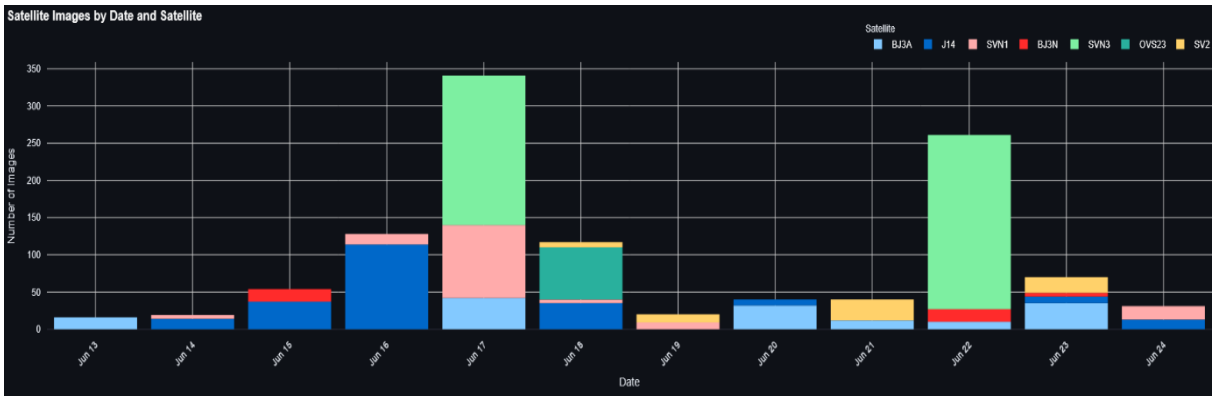


Figure 18: PRC's Commercial Satellites' Daily Imaging of Israel: 13-24 June 2025
(Source- Mr Adithya Kothandapani)

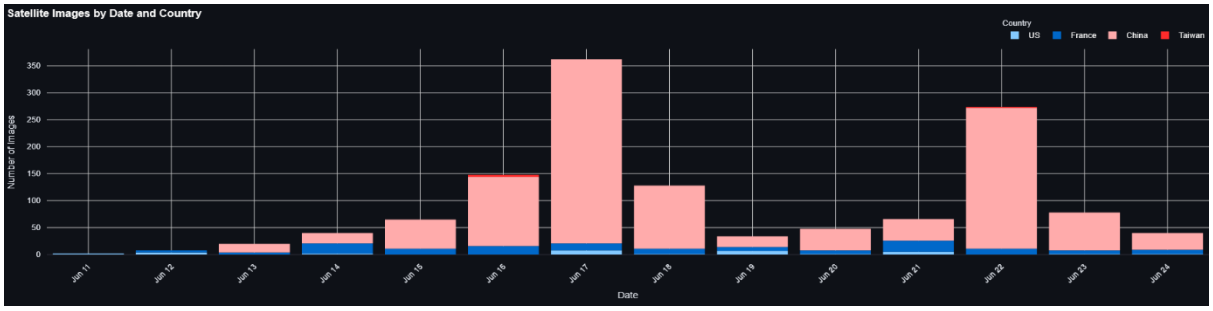


Figure 19: Country Wise Commercial Satellites' Daily Imaging of Israel: 13-24 June 2025
(Source- Mr Adithya Kothandapani)

Russia's Neutral Stance: Despite signing a comprehensive strategic partnership agreement with Iran on 17 January 2025, Russia apparently maintained a neutral stance. While Iran provided Shahed 131 and 136 drones to Russia whose Russian upgraded versions Geran 1 and 2 currently are the mainstay of Russian drones strikes on Ukraine, Russia refused to provide S-400 AD systems to Iran. Russia has still not even delivered the promised Su-35 fighter aircrafts to Iran. Apart from token diplomatic condemnation of American and Israeli strikes on Iran at UNSC and SCO, Russia has exploited this crucial period to maximise its territorial gains over Ukraine since American weapons support to Ukraine drastically reduced during this period.

Operation MIDNIGHT HAMMER

US military had been preparing for targeting Fordow, Iran's major underground nuclear facility, since 2008 as per US General Dan Caine the chairman of the US Military's Joint Chiefs of Staff. He even exhibited a video depicting the bombs testing on similar bunkers replicating the Fordow plant.[62] The American GBU-57 bunker buster bomb, made from a superior high-performance steel alloy and dropped by B-2 Spirit Strategic Bomber, can penetrate approximately 61m underground 5000 pressure per square inch (psi) concrete before exploding; 8m of 10000 psi concrete and 40m of moderately hard rock. With a weight of 13,600kg and 6.2m length, it contains about 2,400kg of explosives mainly the AFX-757 and PBXN-114 types. With Iran's Fordow nuclear facility appreciably 80-90m below the Earth,[63] a minimum double or triple tap was mandatory.

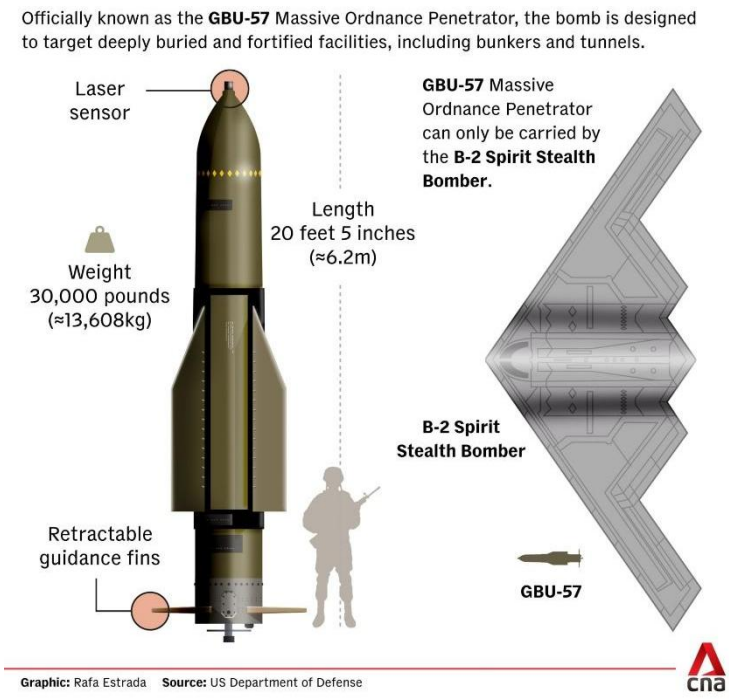


Figure 20: American GBU-57 Bunker Buster Bomb
(Source-Rafa Estrada, Channel News Asia CNA[64])

Aim: The American aim was to obliterate Iran's nuclear structure at Fordow, Natanz and Ispahan as per the US Secretary of Defence Mr Pete Hegseth. The American Chairman of the Joint Chiefs of Staff General Dan Cain described the aim to "severely degrade Iran's nuclear weapons infrastructure". [65]

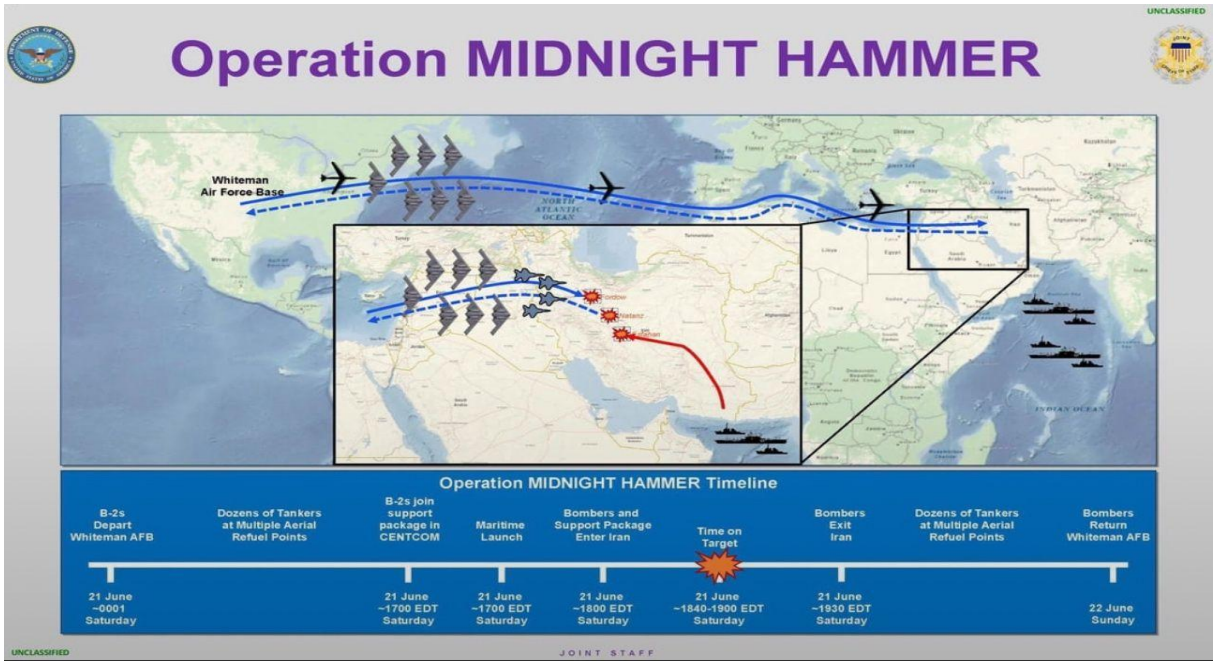


Figure 21: Pentagon Briefing Slide on Operation MIDNIGHT HAMMER
(Source-Dan Magy[66])

On 21 June 2025, the US military fired 14 GBU-57 bunker-buster bombs from its B-2 strategic bomber aircrafts and about 30 Tomahawk cruise missiles from its submarines. 12 bombs struck six points at Fordow plant. The US military claims that the first six bombs hit six points which were the appreciated location of two vertical shafts since June 2008[67], as can be seen in the figure below. After having confirmed the two shafts location post-strike, the balance six bombs stuck those two points thereby achieving adequate penetration to maximise the damage. IDF then targeted the access roads. DG IAEA claims that [68]

> "Given the explosive payload utilized, and the extreme vibration-sensitive nature of centrifuges, very significant damage is expected to have occurred."

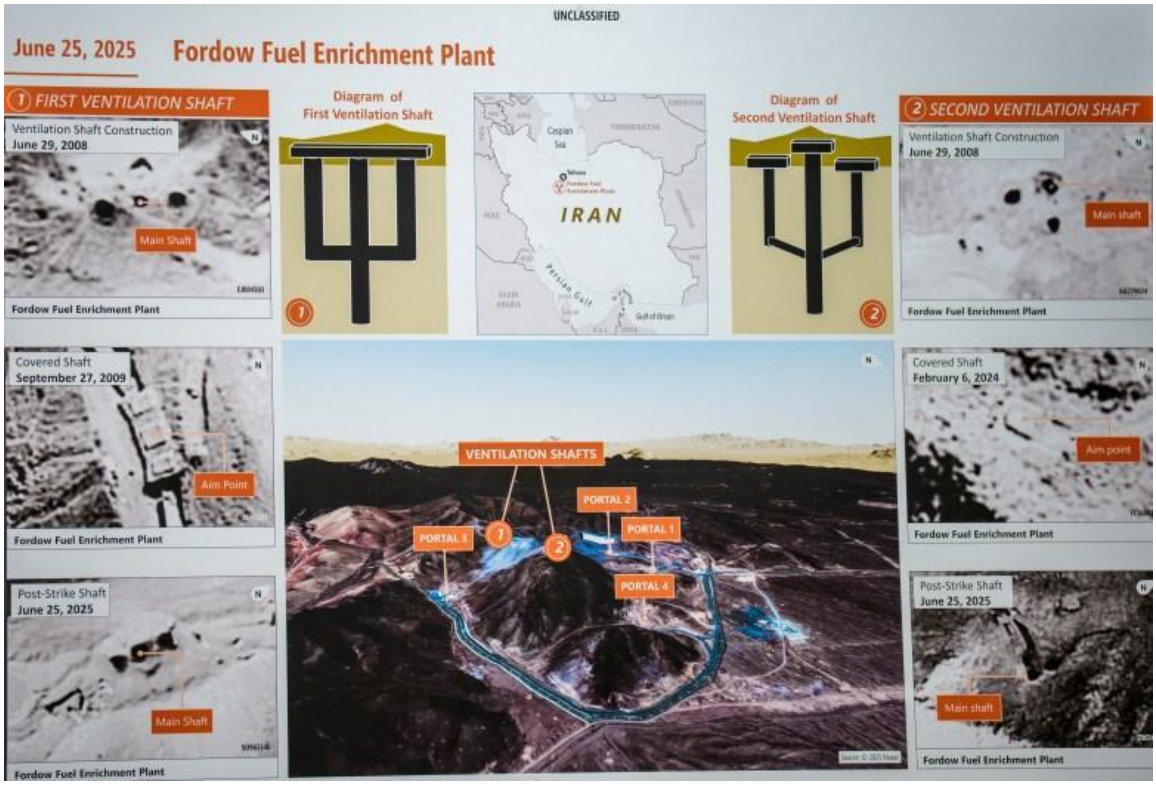


Figure 22: US Military's Preparation for Attack on Fordow Fuel Enrichment Plant Since June 2008

(Source- Andrew Harnik, The Times[69])

The higher resolution electro-optical satellite images of FFEP, post American B-2 bomber strikes on 22 June 2025, confirmed six strike points. [70]

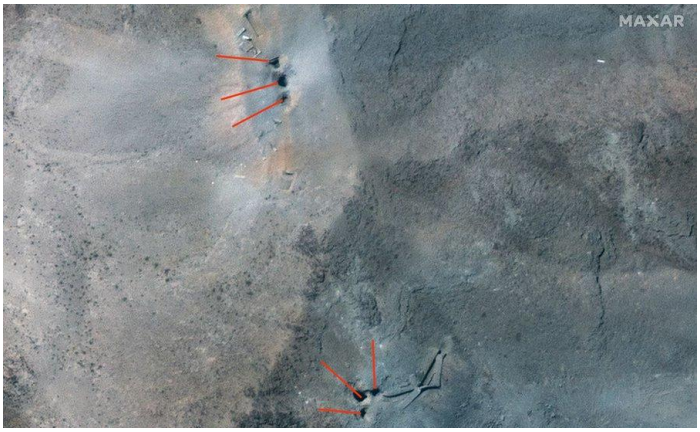


Figure 23: Maxar Satellite's Electro-optical Image of Iran's Fordow Nuclear Enrichment Facility as of 22 June 2025
(Source-SpetsnaZ 007@Alex_Oloyede2[71])

However, a Canadian army veteran and engineer Mike Mihajlovic, after conducting detailed analysis of pre and post-strike satellite imagery as per the image below, appreciates that the American strikes managed to only create a subsidence crater. He elucidates that:

> "*a subsidence crater can be a signature of a failed or partial penetration, where the weapon either detonates in a shaft or soft medium (e.g., gravel, soil); fails to reach the intended depth; or triggers collapse in a tunnel or void below the surface. This type of crater suggests that the bomb may have entered a void or shaft—real or decoy; the explosion may have caused a localized collapse, not structural destruction; the target was likely not deeply affected, unless the collapse intersected a critical node (e.g., tunnel access or ventilation route*)"

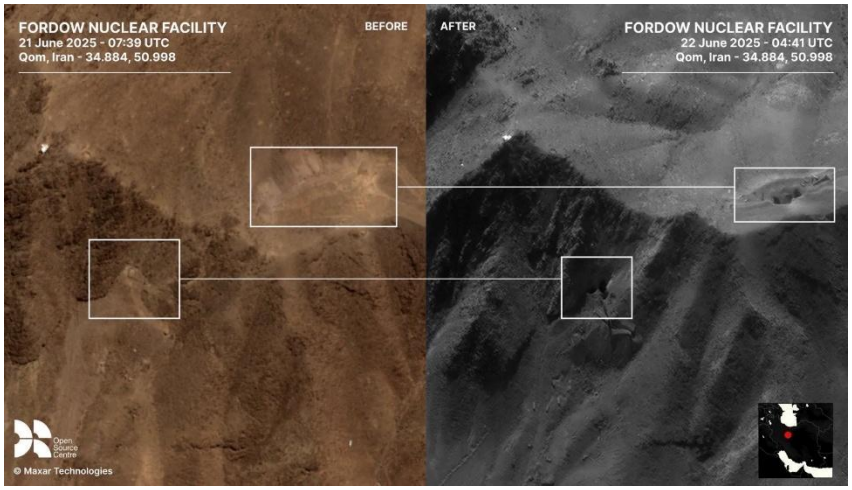


Figure 24: Maxar Satellite's Electro-optical Image of Iran's Fordow Nuclear Enrichment Facility as of 22 June 2025
(Source- Mike Mihajlovic [72])

US military targeted the Natanz facility with two bunker buster bombs on 21 June. IDF, on its first day of RISING LION i.e. 13 June, had destroyed the above ground plant while attempting to damage the centrifuges at the underground location by hitting the electricity infrastructure.[73]

The firing of two GBU bombs on Iran's Natanz Nuclear Facility has shown only one crater indicating a "double tap" wherein second bomb has penetrated the same location struck by the first bomb thereby achieving greater penetration.

Figure 25: Maxar's Electro-optical Satellite Image of 22 June 2025 of Iran's Natanz Nuclear Facility
(Source- Paul P Murphy[74])

Figure 26: Blacksky's Electro-optical Satellite Image of 22 June 2025 of Iran's Natanz Nuclear Facility
(Source- Black Sky[75])

Iran's Retaliatory Operation: Iran launched Qiam / Fattah-1 missiles at American Al Udeid base in Qatar. The base had already been vacated maybe as early as 17 June 2025. Americans most probably fired twenty plus Patriot PAC-3 missiles to defend the base against Iranian missiles.[76] US General Dan Caine claimed that only 44 American soldiers stayed back at the Al Udeid Air Base to operate the two Patriot missile batteries for protection of the entire air base.[77] As per various social media inputs, the oldest soldier left on the base was a US Captain in his late 20s. The US BMD radars and platforms were completely safe.

This operation more importantly provided US military the opportunity to battle test its Patriot missiles, with upgraded software, against Iranian hypersonic MRBMs. The Ukrainian Army had been daily collecting data on missile interceptions of Russian missiles for the last three years plus. The Patriot systems, with upgraded algorithms based on data collected, were battle tested in this operation. At the end of the day, it was a win-win opportunity for all sides- Americans battle testing their upgraded BMD software, Iranian retaliation to pacify its population and Qatar getting to play a mediatory role again and the benefit of latest upgraded Patriot systems on its soil.

The 24 June 2025 Israel-Iran-America's trilateral temporary truce, after Iran's retaliatory strikes on American Al Udeid base in Qatar, appeared pre-mediated and was the replication of **Soleimani model of backchannel diplomacy-based de-escalation between USA and Iran**. In January 2020, when IRGC leader and Iran's second most powerful personality Soleimani was killed in Baghdad by US Military's precise drone strike, the whole world and especially Iranian populace anticipated a very strong Iranian retaliatory response albeit against the global military superpower USA. After diplomatic US-Israel back-channels negotiations most likely, IRGC struck an American base in Iraq. As per various estimates, about 110 US soldiers were injured in January 2020 because of IRGC's strike. On 23 June 2025, when Iran struck American Al Udeid base in Qatar, there were zero casualties since it had been emptied by the US military. With the 2020 condition being repeated, IRGC neither had the missile arsenal to strike American continent, nor did it want to escalate the already volatile situation with the US. Hence, Al Udeid base, sufficiently away from Qatari Capital Doha, was chosen as the target of IRGC's strike where US military even tested its upgraded missile interception system.

Conflict Analysis

The Isfahan Uranium Conversion Facility, as per Dr Jeffrey Lewis, has been largely unaffected as of 23 June 2025. As per him, it's not possible to know where the enriched Uranium is now stored. Trucks had already been found standing at the Fordow facility on 20 and 21 June 2025 indicating that the Uranium may have already been moved out before the American strike. However, as per Mariono Grossi, the DG IAEA, 60% fuel stockpile may be buried in significant depth in Isfahan. So, the best American assumption is that while the fuel stockpile might be safe, Americans may have disrupted Iranian capabilities to enrich it. [78]

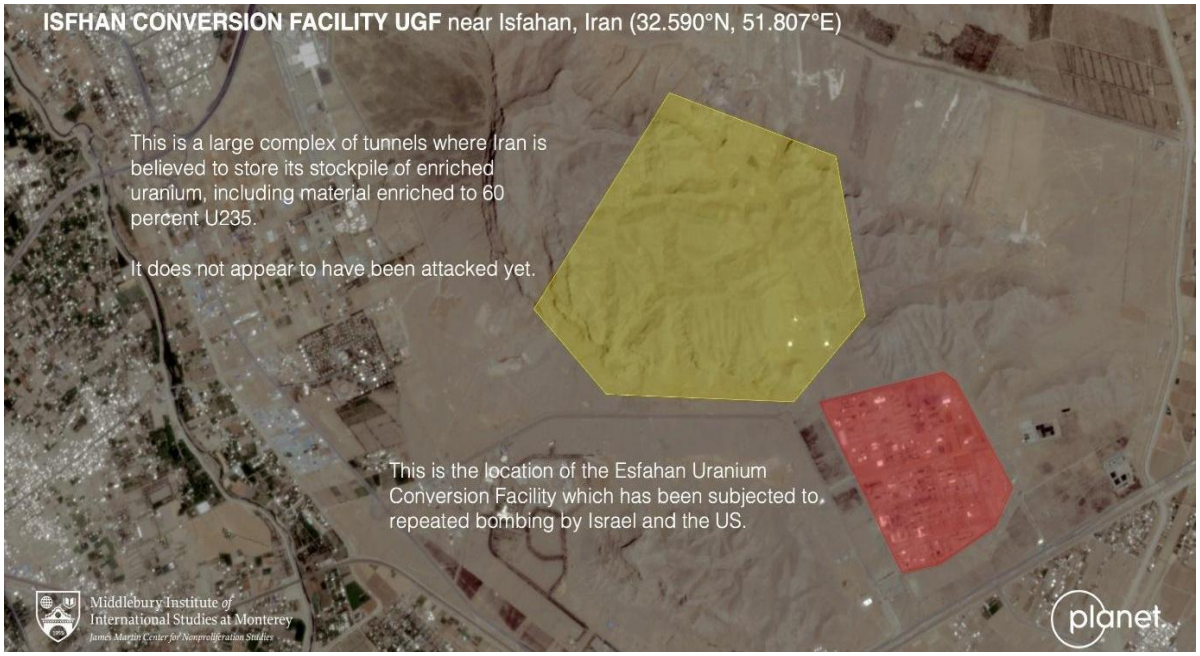


Figure 27: Isfahan Uranium Conversion Facility
(Source- Dr Jeffrey Lewis[79])

Lewis is of the opinion that although Fordow and Natanz strikes have been successful, the underground facility next to Natanz has not been hit as elucidated in figure below. As per his appreciation, Iran can make more centrifuges in these underground facilities. Iran had also announced a new secured enrichment facility which was supposedly ready to commence instalment of centrifuges. IAEA had not inspected this site before American bombing. Dr Lewis concludes that:

> "Iran has retained 400 kg of 60% HEU, the ability to manufacture centrifuges, and one, possibly two underground enrichment sites... Iran

can install nearly 1.5 cascades a week. In six weeks, it could have nine cascades of IR-6 machines. It would take those machines about sixty days to enrich all 400 kg to Weapons Grade Uranium (WGU)…. RISING LION and MIDNIGHT HAMMER have not slowed the Iranian program nearly as much as the JCPOA[80].”

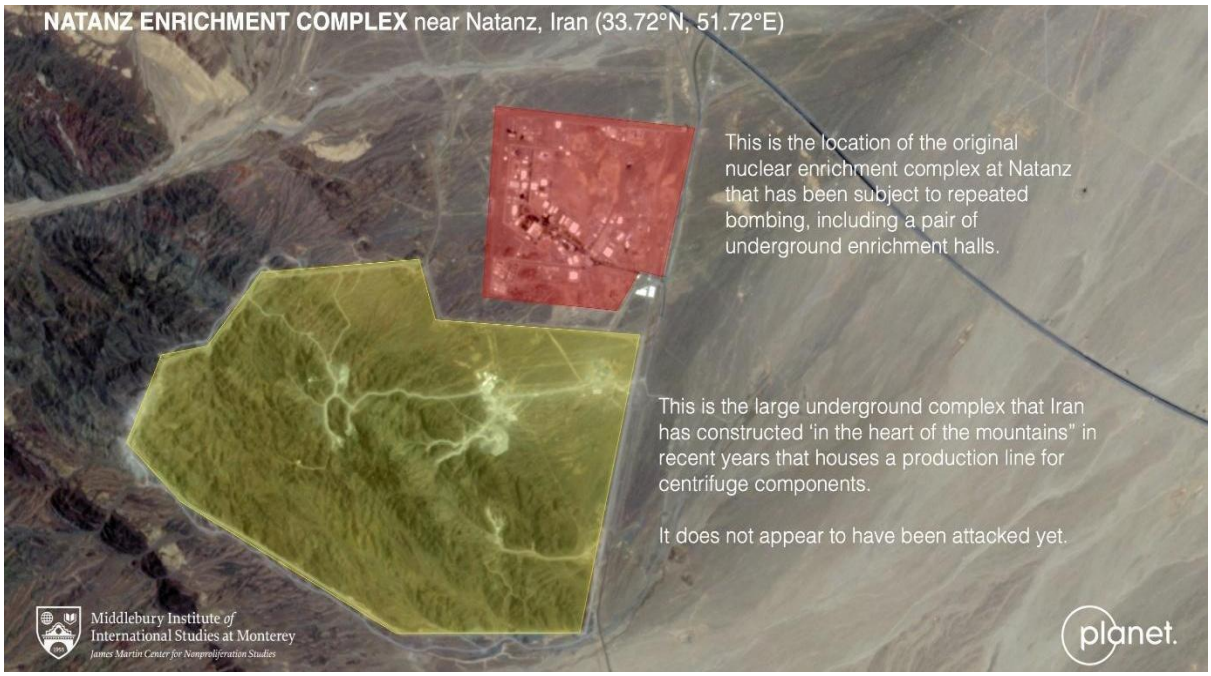


Figure 28: Natanz Enrichment Complex
(Source- Dr Jeffrey Lewis[81])

Iran’s Nuclear Future: As seen in the latest satellite images available on social media, the Iranian nuclear establishment is working 24x7 to repair the damage suffered and get the nuclear enrichment program functional again at the earliest. The critical nuclear concerns, post joint American and Israeli strikes have only magnified, as amplified below: -

- Iranian foreign minister’s Seyed Abbas Araghchi @araghchi X-post on 03 July 2025 aptly sums up Iran’s stance on IAEA and NPT

  “*Iran remains committed to the NPT and its Safeguards Agreement. In accordance with the new legislation by Majlis, sparked by the unlawful attacks against our nuclear facilities by Israel and the U.S., our cooperation with @iaeaorg (IAEA)*

will be channelled through Iran's Supreme National Security Council for obvious safety and security reasons."[82]

- **Future**: Iran may expedite its nuclear weapons production to actually establish nuclear deterrence which didn't exist prior to 13 June 2025. While the elimination of the senior nuclear scientists may have disrupted the knowledge, this will also be a motivation and persistent goal for Iran's nuclear fraternity to prove their strength and resilience. Former Russian President Dmitry Medvedev aptly summed up Iranian nuclear future:

  "***The enrichment of nuclear material (Iran's)— and, now we can say it outright, the future production of nuclear weapons — will continue****."* He further added that *"A number of countries are ready to directly supply Iran with their own nuclear warheads*."[83]

SSM Manufacturing Capacities: As the second most important line of effort, IDF had planned to strike Iran's missiles production infrastructure with a view to deny anticipated 8000 missiles capacity in next two years. IDF claims to have setback this capacity and also destroyed 50% of Iran's SSM launchers.

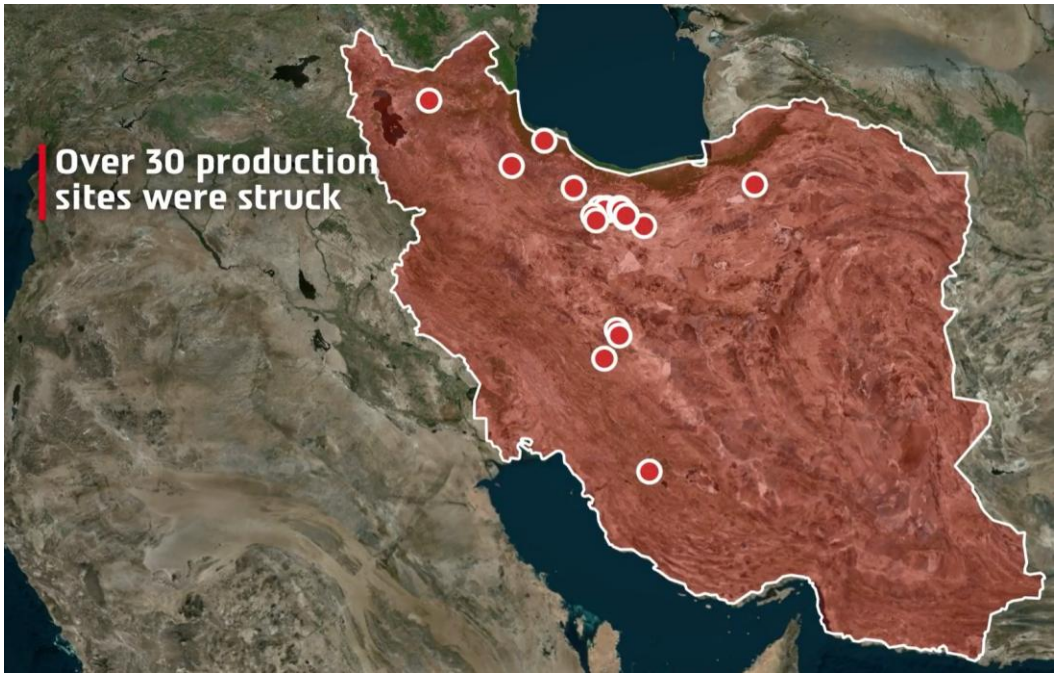


Figure 29: Screenshot from IDF Spokesperson's Brief on Targeting of Iran's Missiles Production Infrastructure
(Source-IDF[84])

Air Dominance: IAF achieved air dominance incrementally during the 12 days conflict. IDF's pre-emptive DEAD sabotage and IAF's first set of strikes over 1500 km on IRGC provided air superiority in Western Iran paving the way for standoff aerial attacks over Central Iran. At 1817 hours on 14 June, IDF claimed that "***Israel Has Established Aerial Superiority From Western Iran to Tehran***". The IAF's precise targeting of IRGC's SSM launchers drastically reduced the intensity and quantity of IRGC's retaliatory missile barrages. Resorting to continuous aerial refuelling[85] throughout the air-missiles-drones campaign, IAF could target nearly 2300 km away on IRGC targets like Mashhad airport. [86]

IDF's UAV Losses: Many social media handles are showing Iranian AD's effective targeting of Israeli drones and also claiming that Iranian EW effectively spoofed IDF drones. Nearly eight IDF's UAV losses have been confirmed which proves that Iranian C-UAS grid functioned despite disintegrated and adversely disrupted AD. The IDF's eight confirmed drone losses include three Hermes 900 UCAVs (serial number 997 near Isfahan, 939 in Markazi province, unknown number in Lorestan), one IAI's largest UCAV Eltan in Western Iran, two IAI Heron UCAVs (numbers 298 and 248 in Lorestan) and two unknown models in Kashan city (one of them having serial number 8373 probably Orbiter drone series).[87]

Hypersonic Missiles' Attack vs Supersonic Defence: The unprecedented level of missile warfare against world's most advanced BMD systems saw a battle between IRGC's hypersonic MRBMs and IDF's BMD supersonic interceptor missiles. IDF spokesperson accepted that IRGC fired about 530 missiles while many OSINT estimates peg that figure at 570. A Times of Israel article dated 24 June 2025 summarised the 12 days war as:

> "*550 missiles, 1,000 drones fired; 31 impacts in populated areas; 28 killed, over 3,000 wounded in Israel; IDF says Iran's capabilities degraded, nuclear program set back years…At least 31 ballistic missile impacts were reported in populated areas or critical infrastructure sites, including a power station in southern Israel, an oil refinery in Haifa, and a university in central Israel. Dozens of other missiles struck open areas, without causing significant damage*." [88]

A detailed analysis of Israeli official and media claims brings out the following:

- **IRGC Success / Penetration Rate**: As seen earlier in April and October 2025, not all Iranian missiles fired may have reached Israel. Since neither IDF nor Israeli media didn't explain this issue like they did for drones, it can be said that IDF's figure of 530 missiles reached Israel by discarding "The Times of Israel" figure of 550. Out of this, 31 missiles hit targets causing destruction which equals a penetration rate of 6% approximately. While this is an overall average, penetration rates may have even reached 20% on the days when IRGC fired its latest missiles.

- Additionally, dozens are claimed to have stuck open areas, IDF's BMD system does allow all those missiles to proceed without interception if they are going to be impacting unoccupied areas.

- **BMD Interception**: Thus, based on IDF's claims, discarding dozens which were likely to be ineffective, IDF would have attempted to intercept about 500 missiles and intercepted about 469. This translates to an interception rate of nearly 93%. CEO IAI claimed that "*the systems intercepted at least 90% of the missiles that it targeted since June 13*". [89] As per Sam Lair, of "Arms Control Wonk" post review of various videos, 34 Arrow-3 (appreciated cost > 100 million US dollars) and ~9 Arrow-2 interceptors may have been fired during the conflict. [90] Lair's assessment of Arrow expenditure appears to be on the lower side surely.

- US Navy's destroyers, with MIM104 Patriot SAM Batteries and the THAAD system, deployed nearby in the Eastern Mediterranean Sea, also assisted in interception of IRGC's MRBMs during the 12 days conflict. [91] Lair further assessed that 39 THAAD interceptors, costing over 495 million US dollars, may have been used. The US defence budget for 2025 had planned for procurement of only 32 THAAD interceptors which means more than one year allocation was used in support of Israel's 12 days not-contact kinetic campaign.[92]

- Israeli Army Radio's military's correspondent has claimed that David Sling successfully intercepted an Iranian ballistic missile for the first time during this June 2025 conflict. [93] This, as per Fabian Hoffman, has validated IDF's **RAAMD 'shoot-look-shoot' concept**. In this architecture, the top layer of Arrow system attempts the initial interception. In case of confirmed failure [of] Arrow interceptor, the medium tier David Sling attempts interception of those adversarial missiles which have successfully evaded Arrow interceptors.[94]

- Lair appreciates that the Israeli interception of IRGC's missiles barrages may have costed more than one billion dollars. Even on the last day of the conflict, both sides had not reached their inflection point since IRGC could continue to fire barrages of 10 MRBMs each and IDF could fire interceptors to block them. [95]

- **Israeli Interception of Iranian Missile Boosters**: IDF's RAAMD architecture was also found intercepting IRGC's missile boosters and re-entry vehicles on many occasions. Thus, IRGC's dual stage missiles with MIRVs have managed to attract more IDF's interceptors.

Collateral Damage – Civilian Casualties: Despite IDF's precision strike capabilities, **there have been more than 900 Iranian civilian casualties** particularly innocent children.[96] Similarly IDF spokesperson accepted loss of 27 casualties and nearly 1217 injured which means IDF's RAAMD defence architecture failed to stop the loss of innocent civilian lives. The Israel government's ban on media, particularly Qatari Al Jazeera channel, may have allowed IDF to cover up much larger losses. The **loss of innocent civilian lives clearly proves that all missile-drones campaigns undertaken on military targets in urban centres will cause collateral damage despite claims of pinpoint precision**. Israel's Health Ministry's statement as quoted in The Times of Israel sums up the official Israeli casualties-

> "a total of 3,238 people were hospitalized, including 23 who were seriously injured, 111 moderately, 2,933 lightly, 138 who suffered from

> acute anxiety, and another 30 whose conditions have not been determined. The vast majority of the casualties were civilians, with the IDF reporting just seven soldiers hurt in one missile impact in central Israel and an off-duty soldier killed in Beersheba… **Israeli strikes also killed at least 610[97] civilians in Iran**."[98]

Drones, Decoys, Missiles and Interception Threshold: Iranians used vintage missiles, drones and decoys in its first strike Operation TRUE PROMISE against Israel on 13 April 2024 thereby achieving little penetration of IDF's RAAMD defences but causing negligible damage. Israel, America and allies were aware and prepared to face the onslaught since Iran had clearly warned. During the surprise Operation TRUE PROMISE on 01 October 2024, it used better missiles without any drones to achieve much wider penetration and causing noticeable damage. Iran managed to calibrate the IDF's interception threshold and reload timings to achieve the required penetration. In a cat and mouse game, IDF worked on its shortcomings and got seven months to upgrade its own algorithms to improve the multi-layered RAAMD defences. However, despite significant damage to its unprotected SSMs inventory in the opening phases of IDF's Operation RISING LION, IRGC launched coordinated waves of drones and missiles to saturate and exhaust IDF's multi-layered RAAMD defences thereby achieving minimum 6% penetration on an average and much higher on days with advanced evasive measures and hypersonic speeds. The precise targeting of Israeli defence R&D installation Weizmann Institute, and Haifa refinery is the proof. IDF's advanced RAAMD defence significantly reduced the damage caused but Israel still suffered substantial damage which made its government agree to the ceasefire on 24 June 2025.

IRGC's Disused Equipment: IRGC effectively deployed some of its disused equipment to waste IDF's ISR and targeting efforts. Such actions also dispelled the much-acclaimed IDF's perfect precision claims. [99]

Figure 30: IDF's strike on a disused MAZ-543 TEL for R-17E Scud missiles near the Iranian Imam Ali base

(Source- Sarcastosaurus [100])

This missile launcher was acquired from Libya in 1985, and has been out of service for nearly 20 years.

Reload Windows: Iran effectively tried to exploit reload windows by launching OWA drones post missile strikes when many of IDF's RAAMD platforms would have emptied their tubes. This also allowed their own MRBMs to replenish. The coordination of timing of drones' launches and firing of missiles thus played a significant role in maximising the RAAMD penetration for target end devastation.

Propellant Selection and Survivability: Many of the IRGC's liquid MRBM launchers were precisely stuck during the starting phases of the Operation RISING LION as shown in the figures below. Solid-fuelled missiles take lesser time to fire when in open at launch positions. Hence, in the transparent battlespace where it might be dangerous to spend more than ten minutes in open, solid propellant missiles might be a better option. Thus, Iranians ensured that all missile hide locations and missile technical / storage positions were covered and concealed in tunnels. They also tried to minimise the movement time from hide / standby missile positions to the launch positions. However, whether as a tactical or technical procedure or distance from the hide tunnels / bunkers, Iranian SSMs fired as clusters, as shown in photograph below, which may have been display of over confidence. In an era of transparent battlespace with assured American satellite cover and Israel's complete air dominance, battle space dispersal for SSMs should have been a basic tactical principle.

Figure 31: IRGC's Missile Launches from Tehran Region on 13 June 2025
(Source- Patarames X-post[101])

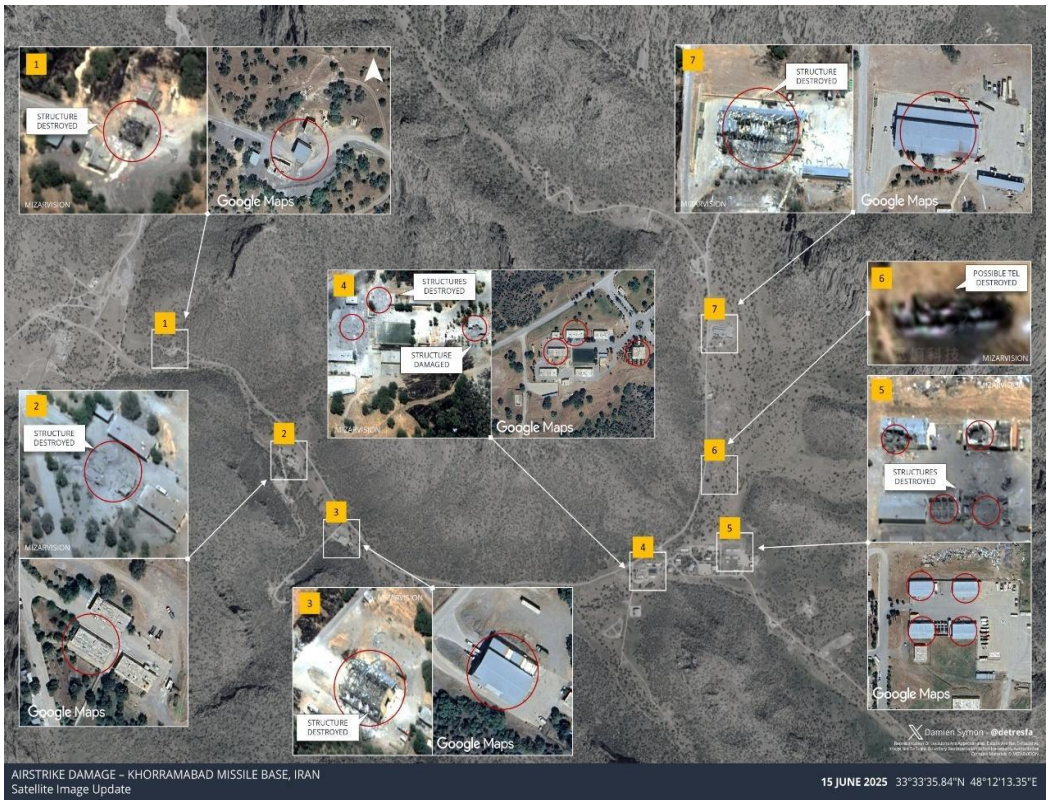


Figure 32: IDF's Air Strikes on IRGC's Khorramabad Missile Base
(Source- Damien Symon[102])

Figure 33: IDF's Air Strikes on IRGC's Kermanshah Missile Base
(Source- Damien Symon[103])

Figure 34: IDF's Air Strikes on IRGC's Kermanshah Missile Base
(Source- Damien Symon[104])

In this image, it's clearly evident that all locations in open got hit while those tunnelled locations (as seen below in google image) got saved

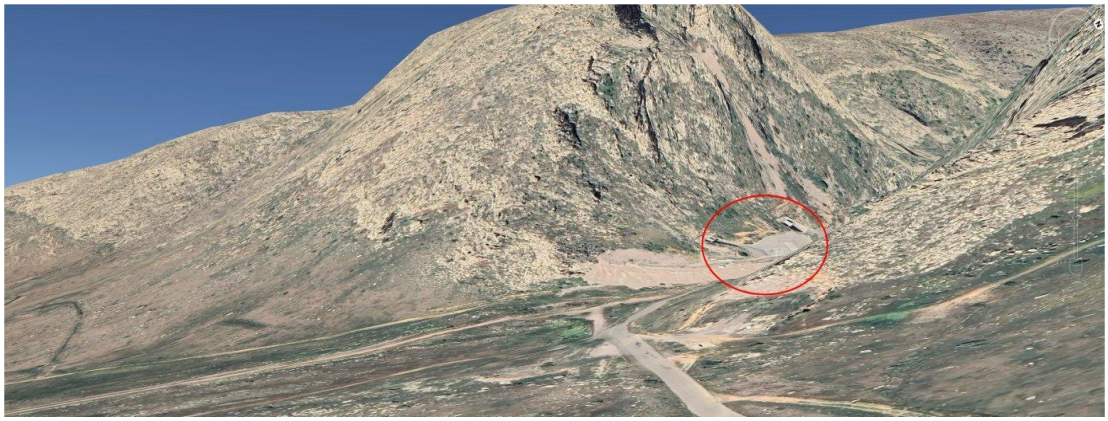
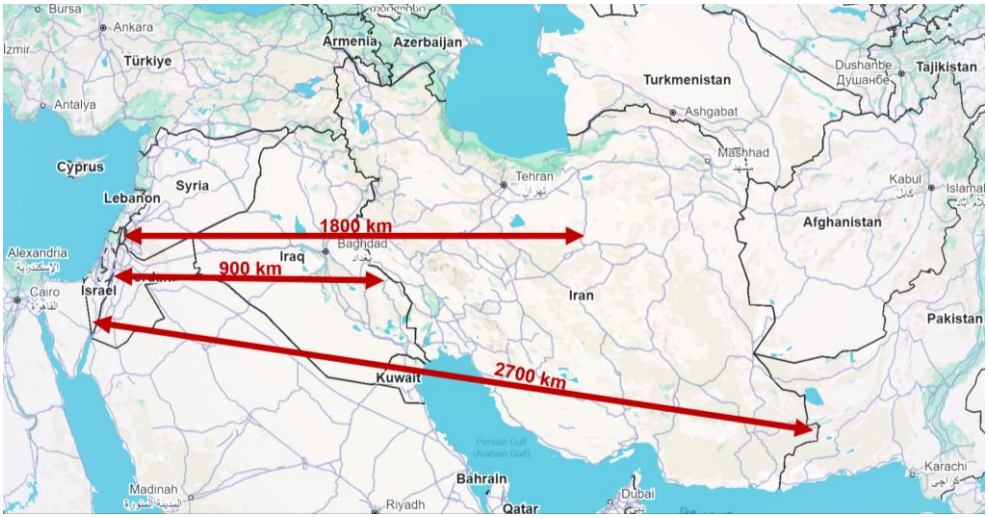


Figure 35: IDF's Air Strikes on IRGC's Kermanshah Missile Base
(Source- ben-reuter@benreuter_IMINT[105])

Iran's Strategic Depth, Reach and Neighbours Pakistan-Azerbaijan: As can be seen from the map below, Iran has a strategic depth of approximately 1800 km from Western most parts of Iran to its Eastern most area neighbouring Pakistan's Baluchistan province. Iran had to place its shorter range MRBMs in Western Iran to target Israel which were then within the IAF's targeting reach. Iran with longer range MRBMs can target Israel more easily by placing them closer to Baluchistan. US President Trump may have discussed some of these possibilities with Pakistan Army Chief Munir during the lunch with him on 18 June 2025. The US strategic bombings on 21 June 2025 evidently prove that Trump had assured himself of all possible outcomes before giving the final go ahead for Operation MIDNIGHT HAMMER. The lunch possibly could also have been a deceptive move for Iran to think of the possibility of US using Pakistani bases to attack Iran while US actually sent the bombers across the Atlantic Ocean to strike the Fordow and Natanz nuclear plants.

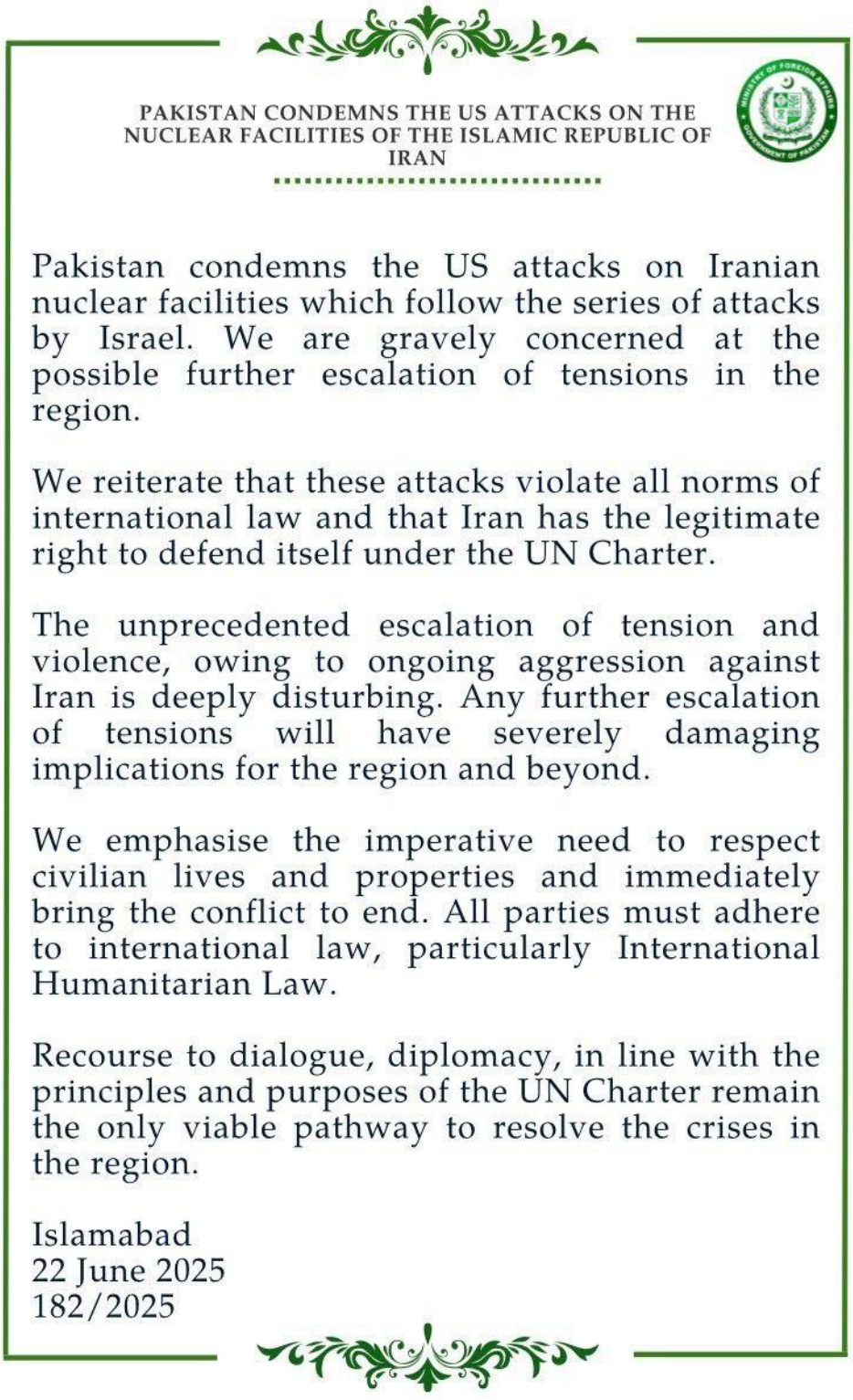


Map 1: Distance between Israel and Western, Central and Eastern Iran

The other interesting aspect is of Iranian Foreign Minister blaming Azerbaijan for allowing Israel to use Azeri airspace. The Map 1 above aptly elucidates that Azerbaijan's airspace is ideally suited for IDF's aerial refuelling operations undertaken to strike Central Iran. Sarcastosaurus, in an article on 13 June 2025 claims that: [106]

> "*Supported by long-range reconnaissance drones - mostly operated from Azerbaijan - they (IDF on 13 June 2025) began releasing air-launched ballistic missiles like Blue Sparrow, Silver Sparrow, Golden Horizon, and Rampage, plus long-range loitering ammunition like Delilah-2, Ice Breaker and Wind Demon*."

With Sunni Türkiye's uncomfortable relations with Shia Iran, its two other eternal brothers Pakistan-Azerbaijan have most suitable geographical locations to become rental states. While Azerbaijan may have facilitated IDF's strikes actually, Pakistan played deceptive and contradictory diplomatic moves of Trump-Munir lunch on 18 June, nomination of Trump for Nobel prize on 20 June and statement on 22 June condemning US strikes on 21 June.



PAKISTAN CONDEMNS THE US ATTACKS ON THE NUCLEAR FACILITIES OF THE ISLAMIC REPUBLIC OF IRAN

Pakistan condemns the US attacks on Iranian nuclear facilities which follow the series of attacks by Israel. We are gravely concerned at the possible further escalation of tensions in the region.

We reiterate that these attacks violate all norms of international law and that Iran has the legitimate right to defend itself under the UN Charter.

The unprecedented escalation of tension and violence, owing to ongoing aggression against Iran is deeply disturbing. Any further escalation of tensions will have severely damaging implications for the region and beyond.

We emphasise the imperative need to respect civilian lives and properties and immediately bring the conflict to end. All parties must adhere to international law, particularly International Humanitarian Law.

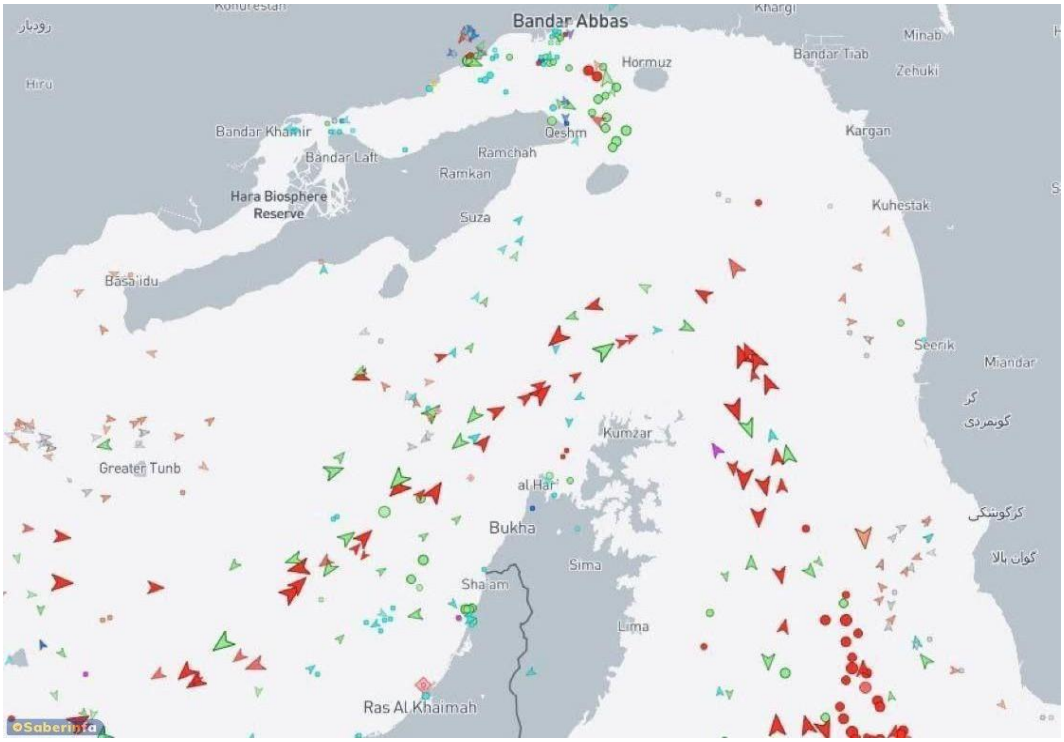
Recourse to dialogue, diplomacy, in line with the principles and purposes of the UN Charter remain the only viable pathway to resolve the crises in the region.

Islamabad
22 June 2025
182/2025

Figure 36: Pakistan's Condemnation of US strikes on Iranian Nuclear Sites
(Source- Iranian Press TV on Telegram[107])

Closure of Strait of Hormuz: Post American Operation MIDNIGHT HAMMER on Iran's three key nuclear sites, Iranian parliament had voted to close the Strait of Hormuz on 23 June 2025.[108] Although the critical strait was not closed eventually, the

Iranian parliament's indications may have expedited US moves for a ceasefire. Global trade would have been significantly disrupted. China could have been the most affected country with both trade and energy supply being disrupted. However, indications were that Chinese ships would have been exempted in such a closure.



Map 2: AIS Trails of 50 Large Oil Tankers in Strait of Hormuz
(Source- Iranian Press TV on Telegram[109])

Support of Iranian National Populace: While US and Israel expected the Iranian regime to topple under pressure of local populace, the Iranians were caught in the dilemma of supporting an unpopular regime or undergoing national humiliation by much hated Israeli and American governments and install their puppet regimes. The targeting of civilians further alienated the population with the entire nation organising protests against Israel-US attacks at multiple locations.[110] As one of the ancient civilisations, Iranian population clearly would not like to be ruled by another country.

Summary: The biggest difference between the two sides was that **Israeli and American systems were throughout integrated while Iranian combat systems generally remained disintegrated**. However, the US and Israel may have underestimated Iranian resilience particularly of their population. As on the day of US-

Israel-Iran ceasefire, better termed third temporary truce, on 24 June 2025 with some violations, the following things clearly stood out:

- **Delayed Iran's Nuclear Weapons Capability**: Iran still holds most probably the same enriched uranium quantity to build nuclear weapons albeit with a delay of a few months to maximum few years. The IAEA head Rafael Grossi claimed US military attacks did not annihilate but caused enormous damage.[111] As per the official IDF X-handle, Israeli Chief of General Staff Lieutenant General Eyal Zamir, post ceasefire, claimed that "*We've set Iran's nuclear project back by years, and the same applies to its missile program*."[112] So, **the obliteration, planned since many years and basic aim of the Operations RISING LION and MIDNIGHT HAMMER, have not been achieved.**

- **Depleted Israeli AD and BMD**: IRGC has depleted Israel's AD and BMD capability significantly from what it was on 13 June 2025. US expended 39 THAAD interceptors which is more than one year procurement cycle. It would take some time and a lot of money to recoup to the original level. It also became apparently clear that despite Israel's brilliant HUMINT based Mossad's SEAD and other operations on 13 June 2025 to destroy IRGC's missile launchers, IRGC had the missiles capabilities to outlast Israel's BMD and AD interception capabilities. While IRGC launchers were significantly destroyed in large numbers, the underground storage facilities conserved the missiles for undertaking longer operations.

- **Disintegration of Iran's AD and IRGC Leadership**: Israel, in conjunction with US military, had planned IRGC's DEAD in detail. While IDF's first phase tested one AD site at Isfahan on 19 April 2024, the second IDF strike on 25 October 2024 targeted IRGC's S-300 LRAD assets thereby crippling it significantly. The two trials, six months apart, gave Israeli defence industry's software engineers adequate time to upgrade the algorithms of their stand-off DEAD weapons from April to October 2024 and then from October 2024 to June 2025. Based on US President Trump's 08 June 2025's executive order, IDF targeted the balance

Iranian AD arsenal from 13 to 20 June 2025 through sabotage and precise air strikes. IDF ensured that Iranian AD was shattered badly before the American bombers strike on 21 June 2025. While IRGC will take significant time and money to rebuild its AD and its strategic and operational leadership, IRGC could still down Israeli MALE / HALE drones. Thus, it's clear that **MALE and HALE UAVs, due to their slow speed, are likely to be easy targets for even depleted AD** as also witnessed in the Russo-Ukraine war.

- **Loss of American Bombers' Deterrence**: The US military surely has lost the deterrence for striking deep-underground facilities and targets despite being provided absolute air dominance by the Israeli military. A well-prepared deeply buried underground facility may at best get damaged but will withstand the strikes which maybe even triple or quadruple tap.

- **Missiles vs BMD**: To sum up, both sides may have neared their inflection points since they accepted and finally adhered to the temporary truce. While Iran surely missed the availability of conventional IRBMs and ICBMs to strike mainland USA, Israel and USA would work harder on enhancing the effectiveness of their BMD against heavy barrages of hypersonic missiles. American Patriots, with most likely upgraded software, did perform better in responding to Iranian strikes on American base in Qatar.

	Israel	Iran	China
Gains-Tested BMD & Bunker buster bombs Cons- Lost diplomatic nuclear talks leverage with Iran & ROK; Loss of moral high ground - increased non-reliability	Gains- Delayed Iran's nuclear weaponisation; Established Conventional Deterrence against others Cons- Significantly depleted RAAMD; Civilian & Infrastructure damage	Gains- Clarity & justification for nuclear weapons; Tested National Resilience Cons- Severely degraded AD, SSMs capabilities & Nuclear infrastructure	Gains- Troves of American wartime data including SIGINT signatures; Lessons for Infrastructure hardening & multi-domain resilience; Lifting of American sanctions on China-Iran oil trade

Figure 37: Summary of Key Gains & Cons

Lessons in Indian Context

The 12 days conflict, when read in conjunction with India's recent Operation SINDOOR and the ongoing Russia-Ukraine War highlights many lessons. It's always better to learn from other's mistakes rather than commit them yourselves. There is clearly a lot which Indian military needs to work on to achieve the minimum credible deterrence in the new era of non-contact kinetic warfare.

C-UAS Grid. IDF has claimed that it intercepted 99% of 1100 plus Iranian UAVs launched. The Times of Israel highlights that:

> "*Most Iranian drones failed to even make it to Israel's borders…around 500 (which reached Israel)— were intercepted by the Israeli Air Force with fighter jets, helicopters, and ground-based air defence systems; the Israeli Navy with missile boats; and the 5114th Spectrum Battalion with electronic warfare means*". [113]

Thus, Iran's daily launch average of about 90 UAVs (over 1100 UAVs in 12 days) was not sufficient to saturate IDF C-UAS defences. IDF undoubtedly has the world's best RAAMD defences but achieving 99% interception of UAVs is simply brilliant and an extremely high success rate if fully true. This is in contrast to other scenarios. Ukraine's AD interception rates have gradually fallen as Russia's mass production capacities of Geran 1 and 2 kamikaze drones (upgrade of Iranian Shahed 131 and 136 drones) and Gerbera Decoys **have** multiplied crossing average launch of 400 UAVs per day. With one more Shahed production factory soon likely to be constructed, Russia may cross the daily 800 OWA drones' mark.

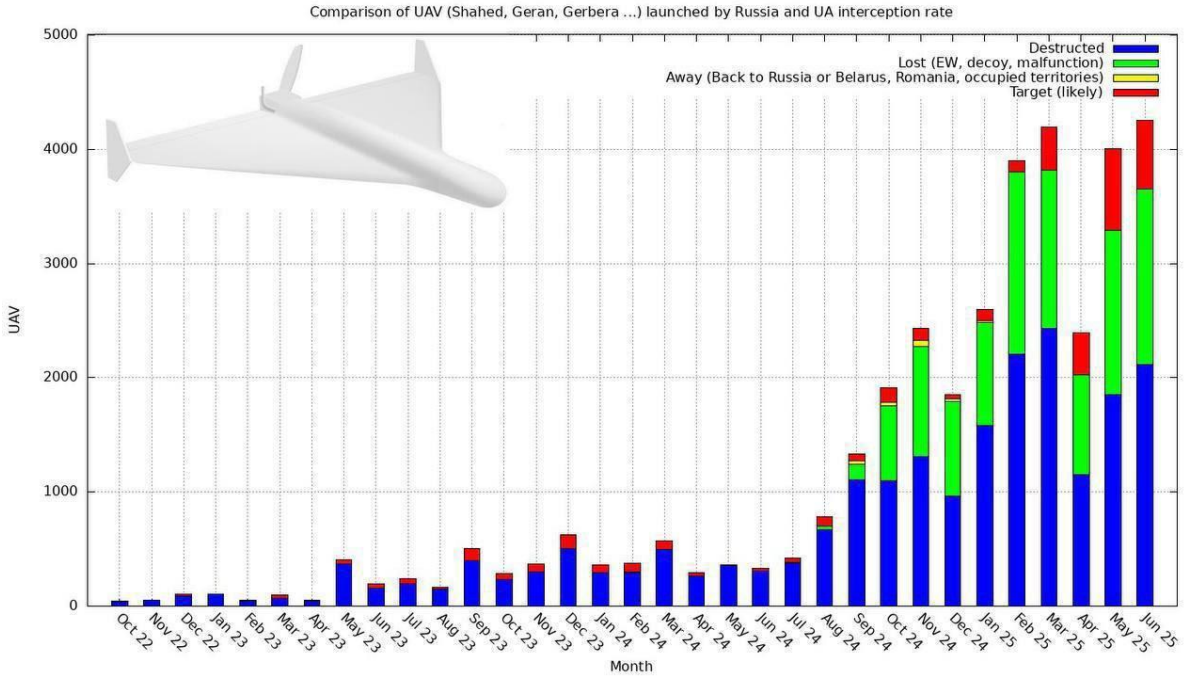


Figure 38: Ukrainian Interception of Russian Geran, Gerbera and Iranian Shahed Drones: October 2022 – June 2025
(Source-JR2@JanR210 X-handle[114])

Despite complete air dominance, IDF still lost 8 plus UAVs which indicated two things- IRGC still had somewhat effective C-UAS grid and that IDF displayed overconfidence of flying slow-moving UAVs in contested airspace. Similar to Ukrainian TB-2 losses against Russia and Pakistan's TB-2 losses to India during Operation SINDOOR, it's clear that slow moving UAVs are easy targets in modern wars **in a** congested **environment.**

Over four days of Operation SINDOOR, Pakistan launched **400**-500 drones per day out of which **bulk** were destroyed while about more than 20 were spoofed. **India undoubtedly needs to work more on its C-UAS grid to achieve at least 95% interception rate while it needs to simultaneously launch more than 400 fully indigenous drones per day along its Northern borders to penetrate PLA's dense C-UAS grid**. While Air Defence wall of planned Indian Military was reasonably well, structured, however, one reason for success was poor quality of drones of Pakistan, China and Turkey, including poor quality of their training.

High-Technology Sabotage: A low-cost but high-technology enabled sabotage Operation Spiderweb was executed by Ukraine against its highly expensive strategic bomber assets of neighbouring warring state Russia at a strategic depth of 4000 km. Israel's Operation RISING LION raised the ingenuity, innovativeness and technology many notches higher to display unprecedented simultaneity and non-linearity to achieve strategic surprise. IDF executed multitude of pre-emptive actions considered necessary for beginning of any conflict- disruption of IRGC C2 at strategic and operational level, DEAD and neutralisation of key SSM launchers thereby laying conditions for complete air dominance. This has set a new normal for HUMINT and special services / forces to execute a special sabotage for maximising asymmetry either against a weak point of or the strongest point of the adversary.

As US military has reduced its special forces, PLA is most likely reducing its special operation forces (SOF) in numbers while improving quality if various defence blog forums are to be believed. However, both Pakistan's ISI and PLA's SOF are capable of replicating such actions on Indian soil with a vast Pakistan Intelligence Operatives (PIO) network and exploiting easily available Chinese drones' components. Pakistan's sponsored terrorist attack in Pahalgam on 22 April 2025 was a sabotage operation precisely executed by collusive technological support by China especially satellite imagery and Ultra communication sets.

Second Strike Survivability: Most military scholars and geopolitical experts emphasise the requirements of second-strike nuclear capability but miss out on second strike conventional missiles' strike capacities. Iran, well aware of Israeli and American intentions, had exactly prepared for this contingency. Despite being subject to large number of surprise strikes on its SSM sites loosing numerous launchers, its underground missile storage sites and more lethal SSMs were safe to launch intense missile barrages for 12 days which even American President Trump acknowledged. Millions of Israelis being forced into bomb shelters regularly throughout the 12 days was a proof of IRGC's resilient architecture to undertake retaliatory second strikes despite losing the senior leaders too. In a multi-front threat scenario, India needs to completely relook at its second strike conventional SSMs launch capacities and capabilities- survivability tunnels / bunkers preferably dual-purpose, strategic reach into mainland China and not **only limited to** Tibet and Xinjiang, assured and accurate

multi-domain ISR cover, surge capacities amidst contested logistics, integral RAAMD support particularly interceptor drones, combat dispersal, variety of decoys etc.

Elongated Conflicts: While Operation SINDOOR lasted for four days, Operation RISING LION and retaliatory TRUE PROMISE III lasted for 12 days. **Op** SINDOOR ended in 4 days as Pakistan ran out of options. A cursory look at PLA's conventional missiles inventory clearly indicates that China is unlikely to be short on combat sustenance. While IISS Military Balance editions have many errors, it is unbiased and hence the errors will be equally applicable to the three countries in consideration- China, India, and Pakistan. **The SSM launchers ratio of >679 Chinese vs >15 Indian vs >105 Pakistanis evidently highlight that Indian asymmetry against China in conventional missiles is critical in all domains – numbers, variety, indigenous production capacities, protection, satellite-based surveillance support and most importantly spatial reach**.

Chinese Missile	**Numbers**	**Indian Missile**	**Numbers**	**Pakistani Missile**	**Numbers**
>250 Dual Capability IRBM					
DF-26	250				
DF-27	New induction				
78 Conventional MRBMs					
Hypersonic DF 17	48				
DF 21C/D	30				
225 Conventional SRBMs				105 Conventional SRBMs	
DF11A	108			Hatf-1	105
DF 15B	81				
DF16	36				
126 Conventional GLCMs[115]		>15 Conventional GLCMs			
CJ-10/CJ10A	72	BrahMos	Army-15 (3 Regiments) AF-2 Squadrons		
CJ100	54				
Total Conventional SSM Launchers	**>679**		**>15**		**>105**

Table 3: Comparison of Conventional SSM Launchers – China vs India vs Pakistan

(Source- IISS Military Balance 2025 Edition)

Conventional MRBMs to IRBMs / ICBMs: Israel's long-range targeting capabilities mainly focused on Western Iran. The launch of Sejil longer-range MRBMs gave flexibility to Iran to exploit its strategic depth from Central and Eastern Iran. In case of India-China, China has gradually transformed from conventional SRBMs to conventional MRBMs like DF17 and IRBMs like DF26 and is in the process of inducting DF27. Similarly, Indian military needs to induct conventional MRBMs and IRBMs at the earliest to overcome two key constraints- striking beyond Qinghai-Tibet Plateau into Han areas of China and avoiding crossing Siliguri Corridor and firing from Southern India. While Iran missed conventional ICBM capabilities to strike mainland USA, China is surely working on numerous new missile systems, including conventional ICBMs to strike mainland USA. Some of the new missile systems may be on display during the PLA's planned grand military parade on 03 September 2025 to celebrate Communist Party's 80th anniversary of victory over Japan.

Civilian Casualties and Bomb Shelters: While Iran's MRBMs could target Israel and Qatar at ease, the extended reach of PRC's conventional MRBMs and IRBMs across the complete length and breadth of India make the complete nation vulnerable to Chinese military's long-range strikes. As it is, PLA's 2020 edition of its "Science of Military Strategy" lists warning military strikes as the last and final step of its escalation ladder. Thus, China will resort to medium and high-density drones-missiles strikes to coerce and compel any adversary nation before starting a war. India, as China's neighbour with disputed border because of China's conquest of Tibet in 1951, maybe subjected to such a strike if any border crisis escalates higher to that stage. Without exaggerating the threat or simulating scary scenarios, there is surely a need to look at survivability shelters for critical locations and not just border locations like **what was done during** Operation SINDOOR. Even during **Op** SINDOOR, Pakistan had tried to target Delhi, while the missile was effectively intercepted at Sirsa.

Satellite Support: Assured American satellite support comprising the Positioning Navigation Timing Remote Sensing Communication (PNTRSC) trilogy ensured that Israel had near real time 24x7 persistence surveillance of Iranian movements. The American precision was at display when 2-4 bunker buster bombs passed through the same point. While Chinese have much higher remote-sensing capabilities and imaged the area much more, China may or may not have provided Iran the images captured.

The troves of American wartime data captured will surely facilitate PLA's Intelligentisation of space domain and thereby achieving their transformation from "Sense from Space; Analyse on Ground" to "Sense from Space; Analyse in Space". However, Iran had assured Chinese Beidou PNT support which was part of the strategic partnership agreement signed in 2021. **However, India is way behind and needs to build its indigenous PNTRSC cover rapidly for fast-paced missiles-drones campaign**. The repeated assurance of Space Based Surveillance (SBS-III) plan of 52 satellites needs to be implemented on ground urgently.

AD / EW Mapping and DEAD: The interval between three IDF's strikes on IRGC's AD assets in April 2024, October 2024 and June 2025 was adequately used to improve the algorithms of IDF's standoff weapons. The precise targeting of SSMs and the IRGC leadership thereby facilitated IDF to freely target IRGC military targets at their own will. **Pakistan similarly, through a combination of Turkish and Chinese UAVs and Chinese ELINT satellites[116], had mapped the Indian EW and AD activated during Operation SINDOOR. It's quite expected that Chinese software engineers shall be working on the data obtained including preparing for interception of BrahMos cruise missiles**.

Deception, Decoys and Disused Equipment: The American military claimed that they attempted deception, as part of Operation MIDNIGHT HAMMER, by flying few B2 bombers across the Pacific Ocean while the main bombers package actually flew across the Atlantic Ocean. More importantly, US President Trump's statement on 20 June 2025 that he will take two weeks to decide on American participation in Iran-Israel war may have deceived Iranian strategic leadership slightly more. While the US military didn't achieve much significant deception, there was no major use of decoys by Iranians like the Russians have been using the Gerbera decoy drones. However, Chinese are very apt at deception both diplomatically and militarily through their 36 stratagems taught to every Chinese child. Chinese also use multi-domain decoys in great quantum to magnify adversarial surveillance and targeting efforts. Indian military must adapt the art of deploying decoys as well as deploying its disused equipment for both deception and as decoys to increase adversary's ISR and targeting efforts.

Software and Algorithms: The three pillars of modern intelligentised or AI-enabled battles are data, computing power and algorithms. The Russia-Ukraine war has produced enormous amounts of realistic battle data which is being adequately harnessed by America and Ukraine on one side, and Russia and China on the other side. As discussed earlier, the AD data obtained by Ukrainians against Russian missiles-drones strikes was used to build better algorithms for American Patriots employed to defend American Al Udeid Base in Qatar. The Turkish TB-2 experience against Russians was used by Türkiye to make better AI-enabled TB-2T-AI and TB-3. **It's an unwritten rule now that software and algorithms are part of military arsenal**. **Indian IT expertise needs to be collectively harnessed with Indian military data to achieve Algorithmic Superiority** in war and which must be validated in grey zone actions too. We should not be surprised if Turkish and Chinese AD and BMD systems' software engineers are already working on BrahMos supersonic cruise missiles.

Penetration of A2AD Bubble: While Indian BrahMos cruise missiles have already penetrated Pakistan's AD grid relying on imported Chinese IADS comprising HQ9 and HQ16 AD systems with limited and no ABM capabilities respectively. PLA has HQ19 LR-SAMs which are claimed to have ABM capability but may not be effective against supersonic cruise missiles like BrahMos and have not been battle tested. However, PLA is now trying to induct latest AD systems HQ 29 and HQ26 which will have better BMD capability and longer range.

Survivability of Missile Platforms: Solid conventional missiles are preferable for Indian military keeping in view in the enhanced ISR transparency of Chinese PLA. The technical positions (TP) for storage of missiles and hide / standby positions for all conventional missile assets need to be underground or dual-purpose tunnels at all costs. IDF strike on one of the open IRGC's SSM storage sites, as elucidated in the photo below, adequately explains the problems. Furthermore, the time spent in missile launch positions must be minimised to ten minutes with multi-domain signature being as minimal as possible.

Figure 39: IDF's Strike on IRGC's SSM Storage Site Outside Tabriz with Secondary Detonation and Fires
(Source- Sarcastosaurus [117])

Replenishment and Scoot Time: Post firing of missiles, the SSM launchers are very vulnerable during their scoot time to hides. Additionally, replenishment takes long time and needs to be undertaken in well-protected bunkers or replenishment pads inside tunnels. The missile deployment concept of Arm (crisis commencement)-Scoot (minimum open exposure from TP to standby position)-Hide (preferably tunnel / bunker awaiting target detection)-Scoot-Shoot (from launch position) – Scoot (within less than 10 minutes to replenishment position / next hide)- Hide (await next target) must be religiously followed. This **arm-scoot-hide-scoot-shoot-scoot-hide cycle needs to be well planned during adversarial satellite blind periods with adequate C-UAS cover assured during moves**.

Integration of Missile Deployment with Kill Web: Integration of doctrines, communication systems, combat platforms, organisations and architecture etc is essential to ensure that "Detection Means Destruction". Chinese military has clearly defined its concept of missile positions and is further integrating its Rocket Force capabilities with its Aerospace Force in a kill chain / web as elucidated below.

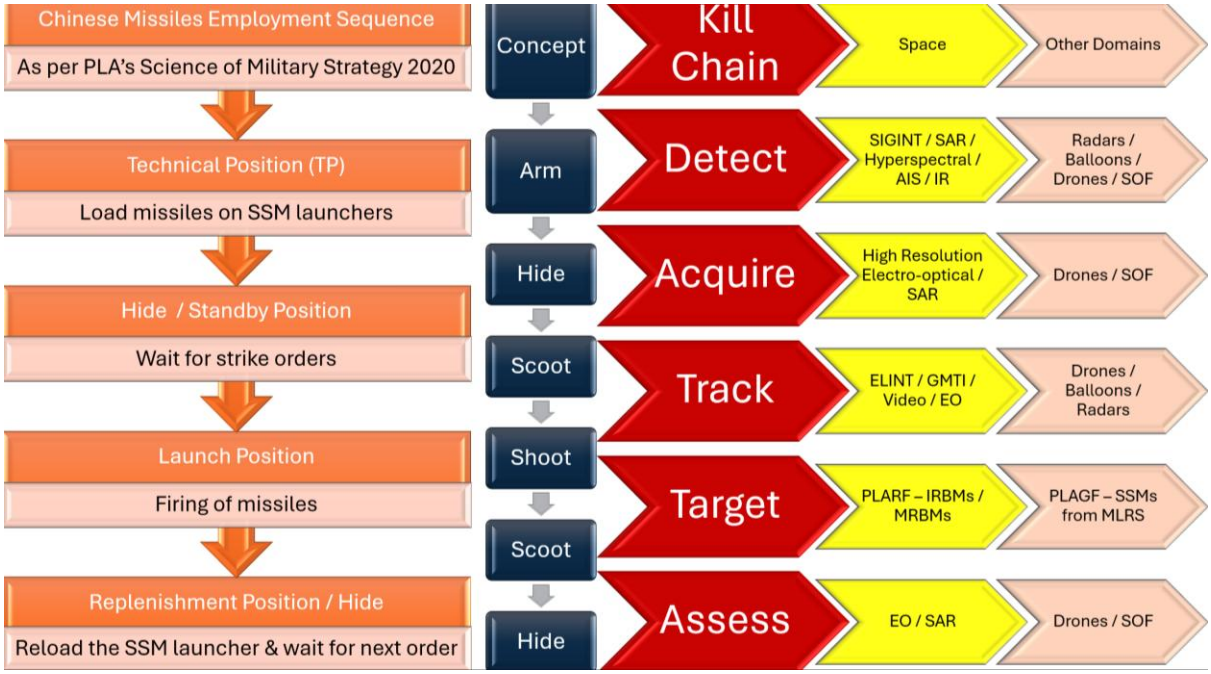


Figure 40: PLA's Notional SSMs Deployment Sequence with Kill Chain

(Source-Author's Research)

Single Launcher Deployments: Single launcher deployments, despite taxing logistics, security and C2 arrangements, are most suitable in the modern era of battlefield transparency. While they ensure combat dispersal thereby maximising survivability, they also manifold increase the adversarial surveillance and strike missions and thereby their exhaustion. Decentralised single launcher system of missile fires execution with multiple hides and launch positions with minimal multi-spectral signature is the need of modern battlespace. In fact, each launcher must have adequate C-UAS protection with an integral FPV drone being available as an assured aerial interceptor till the time better protective measures are provided.

Precise Targeting of Nuclear Scientists: Indian nuclear scientists have also been targeted earlier. With Israel's direct targeting and elimination of 11 Iranian nuclear scientists, **India must consider its nuclear, hypersonic, AI and other critical R&D scientists as strategic assets which must be resiliently protected against multi-domain threats**.

Elongated Drones-Missiles Conflicts: A 4-day conflict made Pakistan run out of retaliatory options and a 12 days conflict made Iran-Israel nearly reach their inflection

points. The difference of 8 days was that both Iran and Israel still had indigenous production capacities. During an elongated three years plus conflict, Russia is now more confident of completing the planned operation as its indigenous drones and missiles have been massively scaled up. Russia has displayed unprecedented rapid prototyping capabilities. The other issue is that it's both temporal and spatial integration and AI enablement of drones and missiles which have finally been able to penetrate the congested AD bubbles as evident from Russian missiles-drones campaign against Ukraine from January to June 2025 in figure below. While heavy barrages of missiles and missile interceptors can be extremely expensive for even the richest of nations to sustain, low-cost drones both in strike and interception roles come out as the most suited cost-effective options. The backup of this integration is an indigenous RAAMD defence and 24x7 multi-disciplinary ISR support. Modernisation through 100% indigenisation of RAAMD, drones, missiles and Space thus becomes most essential for India's survivability at the cost of repetition.

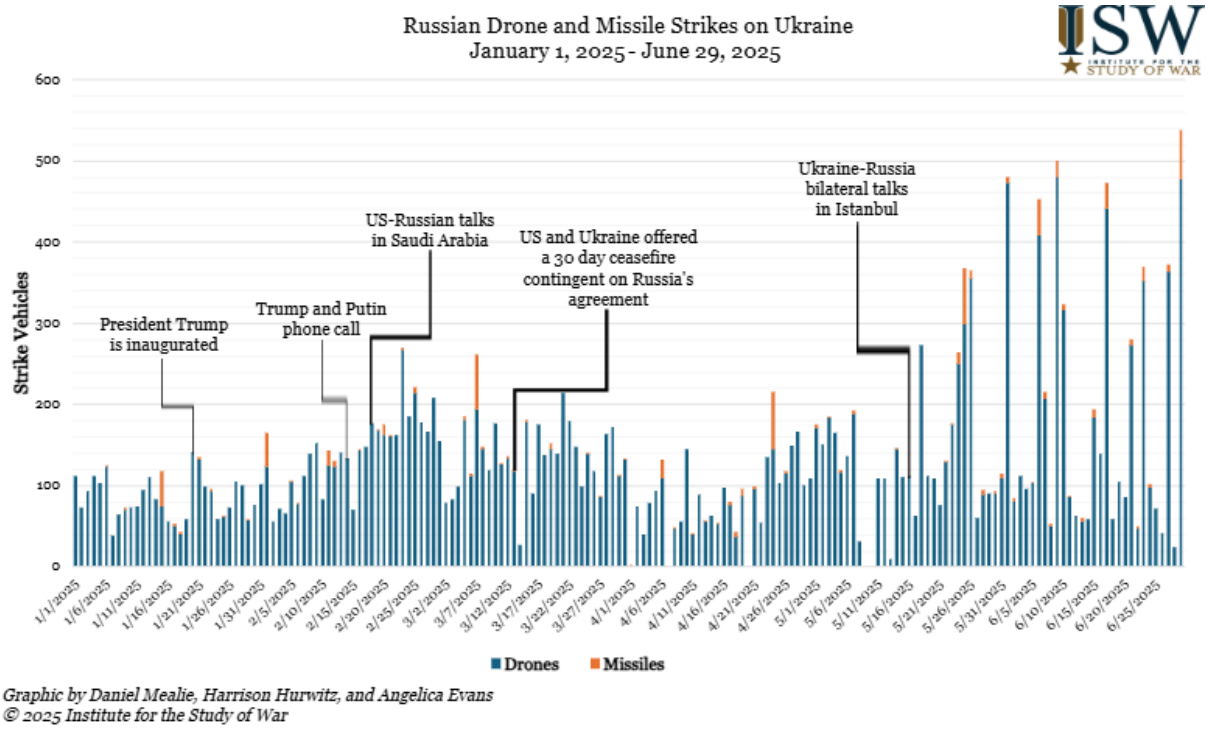


Figure 41: Russian Missiles-Drones Strikes on Ukraine from 01 January to 29 June 2025

(Source- US Institute for the Study of War[118])

Iran-Pakistan Relations: Last but not the least, the diplomatic relations between Iran and Pakistan cannot be forgotten. Post the unprecedented lunch between US President Trump and Pakistan Army Chief Munir, it was expected that Iran-Pakistan relations would get disrupted particularly Pakistan's nomination of Trump for Nobel Peace Prize. However, Iranian media has been praiseworthy of Pakistan's condemnation statement of US attack as well as protests inside Pakistan against Israeli aggression. While Pakistan nominated Trump for Noble Peace Prize on 20th June, its diplomats did manage to recover lost ground by 22nd June.

Conclusion

An unprecedented 12 days conflict between Israel, Iran and USA without any ground combat ushered in a new era of non-contact kinetic battle of hypersonic ballistic missiles against supersonic defence missiles. With no clear winner, the two main opposing sides Israel and Iran accepted American ceasefire since the cost of war and results were surely not commensurate. While neither the attempted regime-change by superpower America took place nor Iran's nuclear assets were obliterated as claimed by American President Trump, Iran stood alone amidst symbolic diplomatic protests and limited overt support by its strategic partners China and Russia. Iran would have surely realised its strategic blunder of not moving full way like North Korea or its Islamic neighbour Pakistan to develop nuclear weapons, and has thus subjected further IAEA inspections to the approval of Iran's Supreme Council. While years of IRGC's persistent preparations ensured that Iranian nuclear assets could survive the unprecedented onslaught of American and Israeli air-missiles-drones strikes, it was the Iran's indigenous MRBMs industry which could incrementally penetrate Israel's integrated RAAMD with greater volatility thereby leading to an unconditional ceasefire. Although diplomatically UN's failure in conflict management has been proven again, the silence and absolute lack of unity to criticise USA for its act of sovereignty violations is once again a signal that only possession of a nuclear weapon with assured second-strike capability maybe the guarantor of national security. Thus, **for India, Strategic Autonomy with 100% indigenisation of its space-missiles-drones-rocket industry is not just a concept but an absolute essential for survivability as an independent respectable nation.**

The most important military takeaways are that boots on ground are essential for even the most advanced technological strikes and survivability of these boots and strategic infrastructure can only be ensured by persistent tunnelling and establishment of underground infrastructure. While IDF succeeded in initial phase in DEAD in establishing complete air dominance, US strategic bombers could not obliterate the tunnelled infrastructure which could have been made possible only by boots on ground. In Sino-Indian context, PLA has already structurally overcome the weaknesses observed in IRGC- RAAMD, Space and ISR, airpower etc but also has many times the capabilities of IRGC's strengths- conventional MRBMs / IRBMs / LACMs, drones and rapid development of tunnelled / underground infrastructure along Indian border with sufficient decoys. **With geographical buffers of Qingahi-Tibet plateau and Xinjiang, Indian military urgently needs to relook at its non-contact kinetic and non-kinetic warfare capabilities including RAAMD defences and C-UAS grid along our Northern borders**.

About the Author

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